

APPROVED BY  
DRAFT

Appl. No. 10/026,952; Filed: December 27, 2001  
Dkt. No. 0942.4980006/RWE/AGU; Group Art Unit: 1623  
Inventor(s): NAZARENKO *et al.*; Tel: 202/371-2600  
Title: Primers and Methods for the Detection and Discrimination  
of Nucleic Acids

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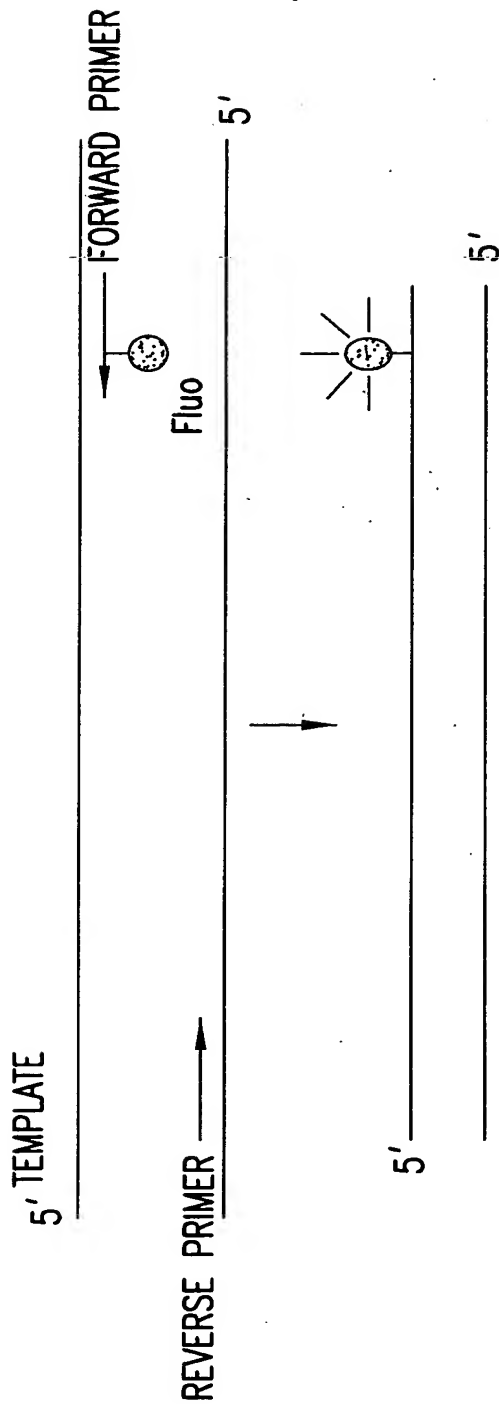


FIG.1A

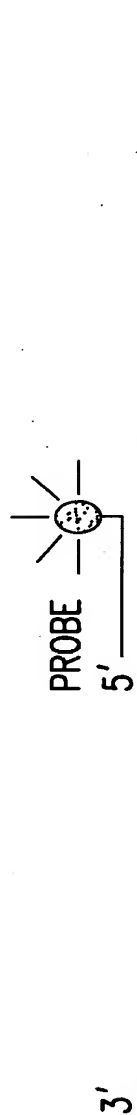


FIG.1B

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Appl. No. 10/026,952; Filed: December 27, 2001  
Dkt. No. 0942.4980006/RWE/AGU; Group Art Unit: 162  
Inventor(s): NAZARENKO *et al.*; Tel: 202/371-2600  
Title: Primers and Methods for the Detection and Discrimination  
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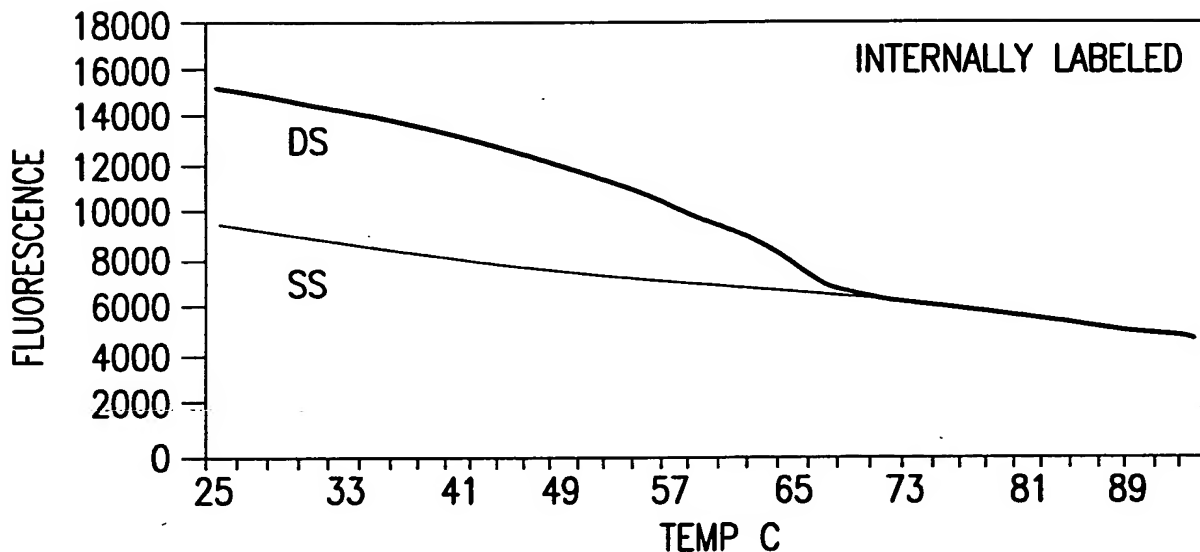


FIG. 2A

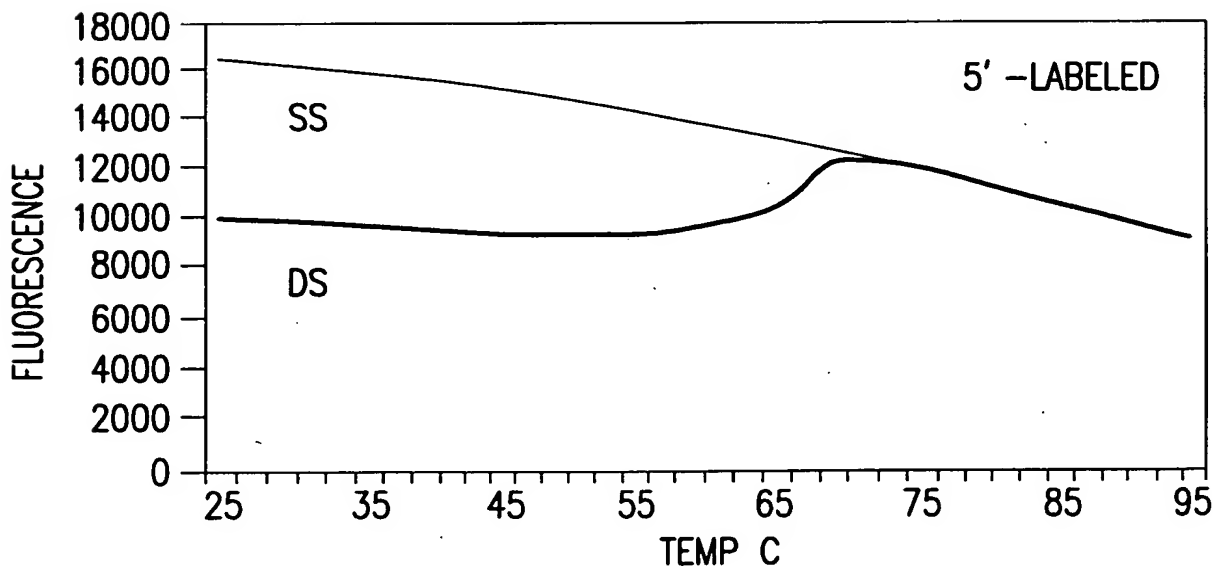


FIG. 2B

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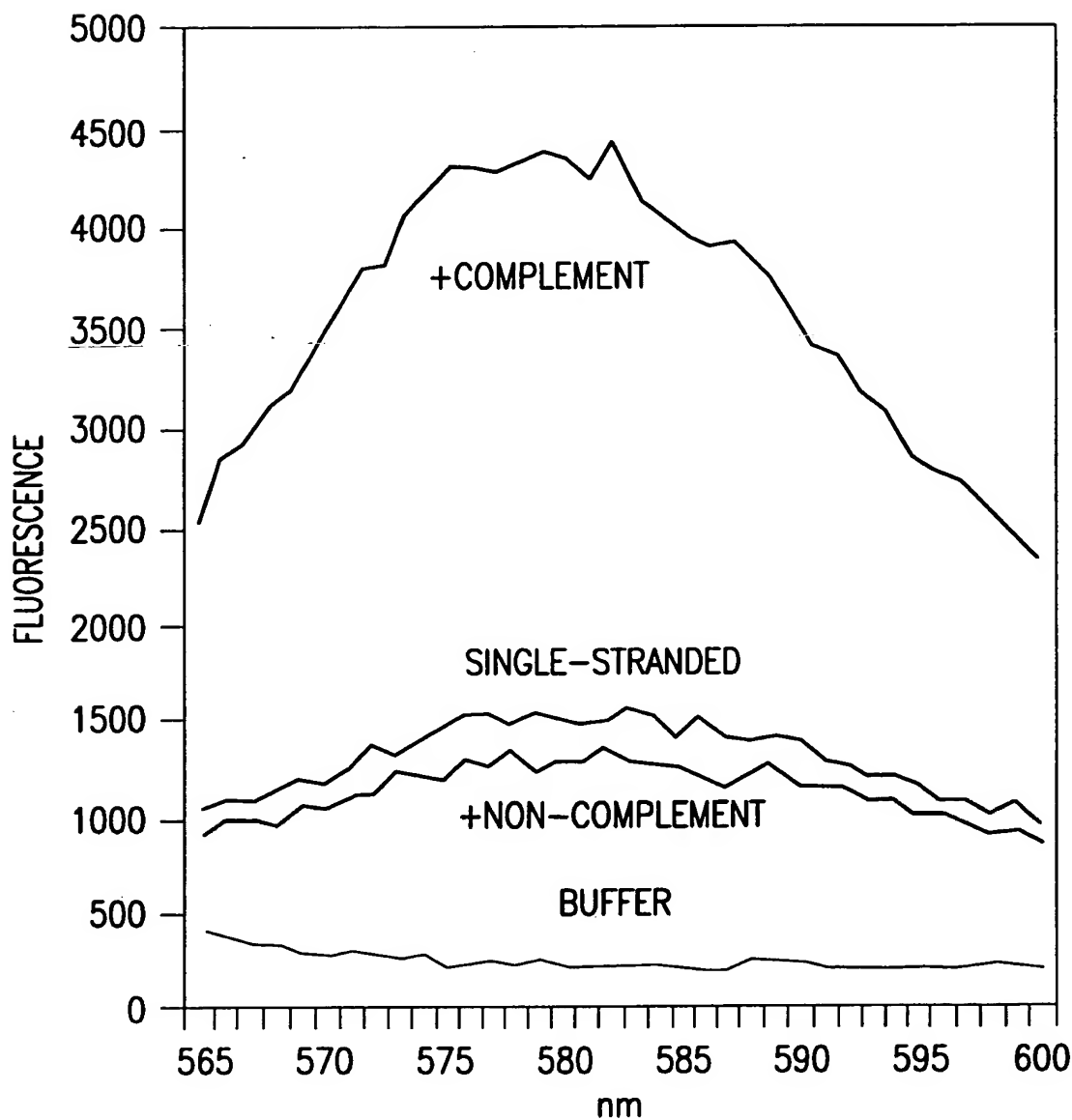


FIG.3

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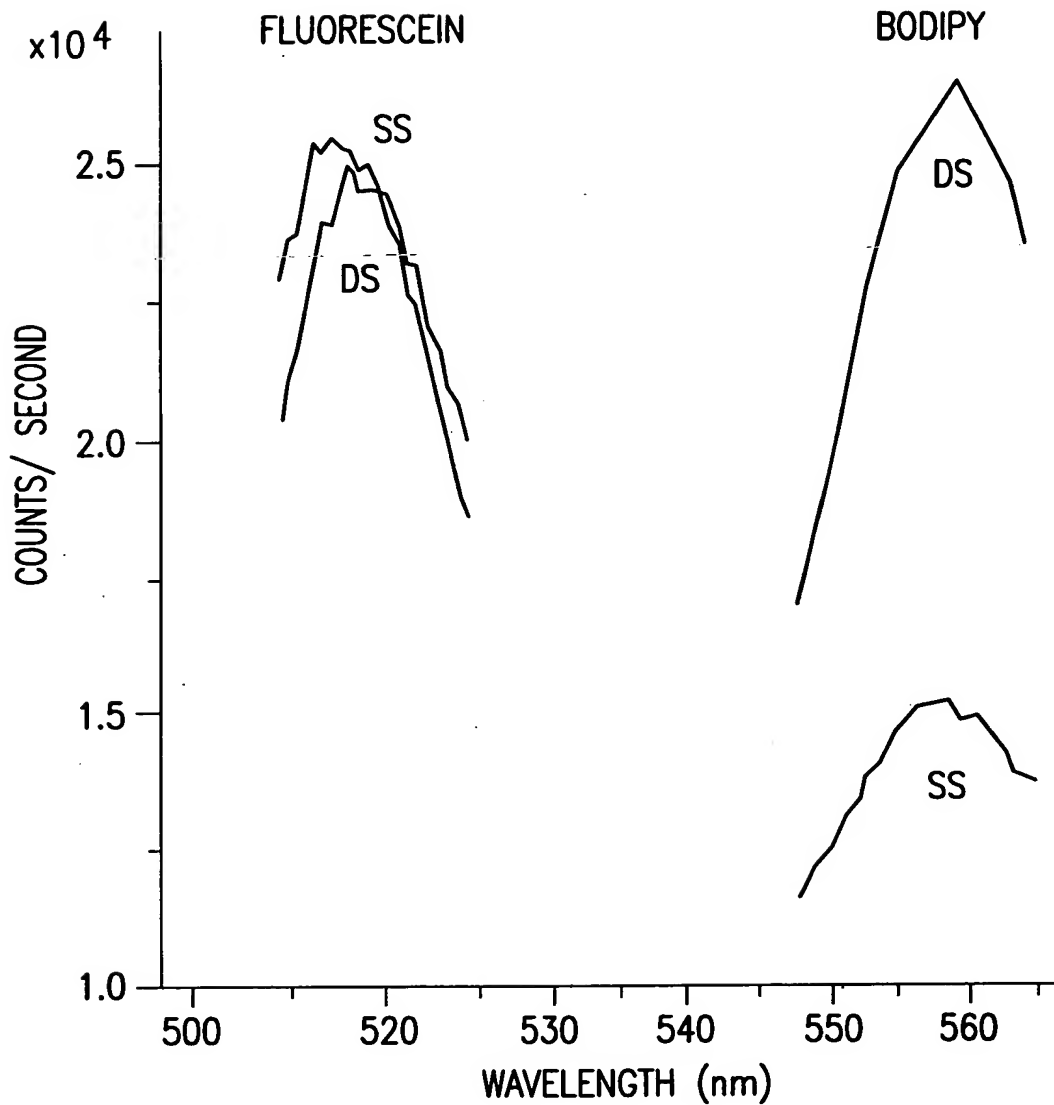


FIG.4

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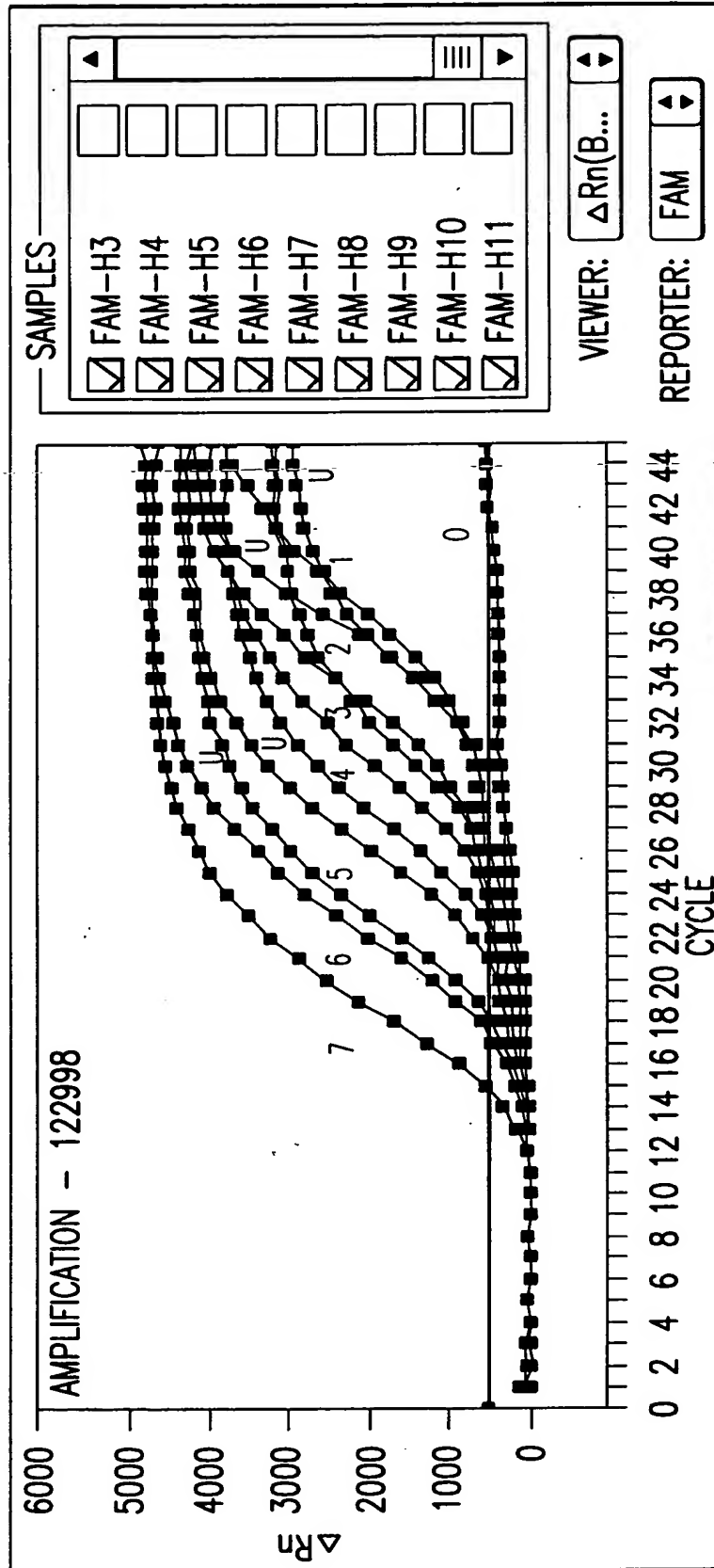


FIG.5A

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THRESHOLD CYCLE CALCULATION

THRESHOLD

USE THRESHOLD: 505.0 SUGGEST

MULT. \* STDDEV: 10.0 \* 14.012

OMIT THRESHOLD: 2.0

BASELINE

START: 4 STOP: 12

UPDATE CALCULATIONS

	CT	STD DEV	
FAM-G1	45.000	13.424	▲
FAM-H1	30.459	23.908	≡
FAM-H2	26.266	18.654	
FAM-H3	22.661	14.066	
FAM-H4	18.267	18.699	▼

FIG.5B

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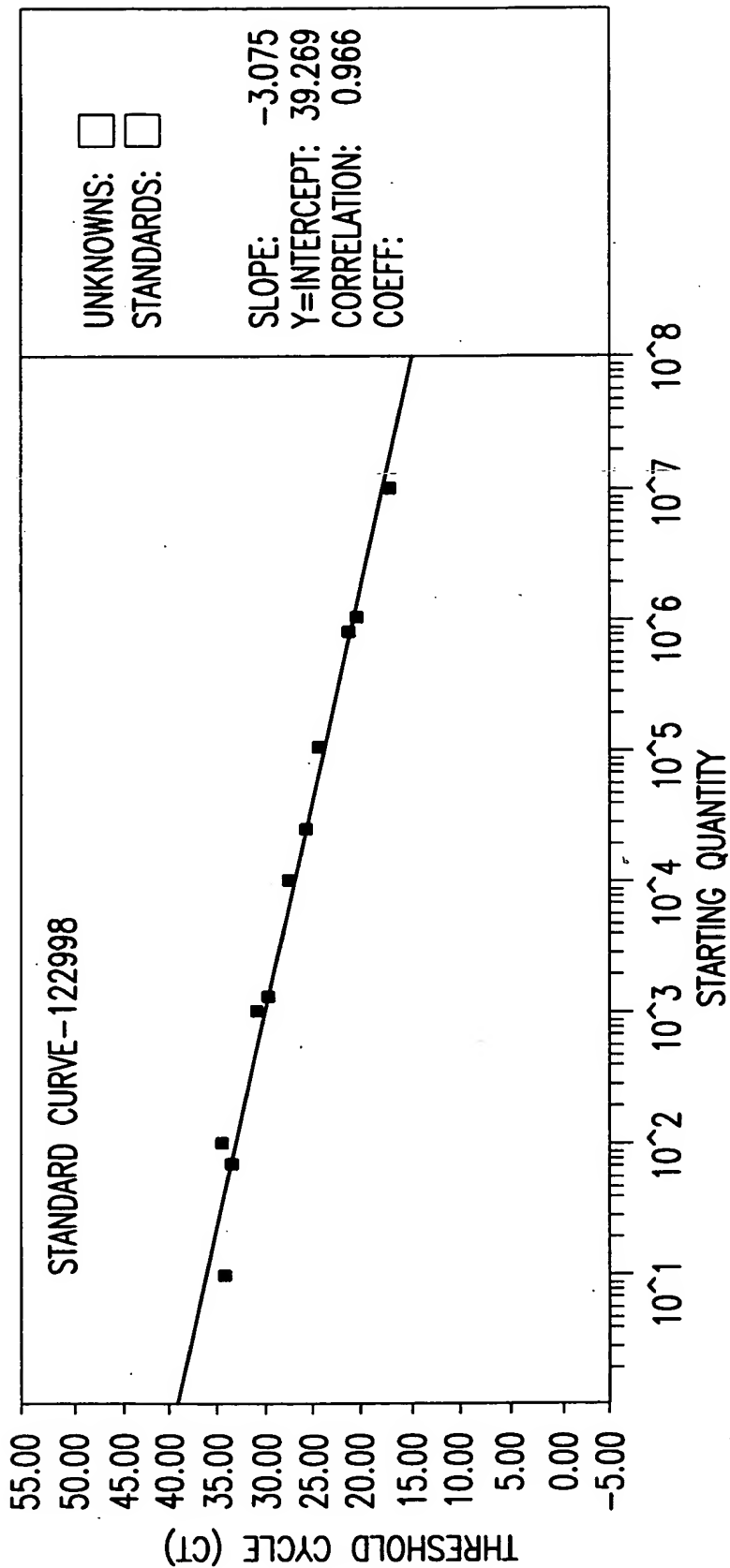


FIG.5C

APPLIED C.  
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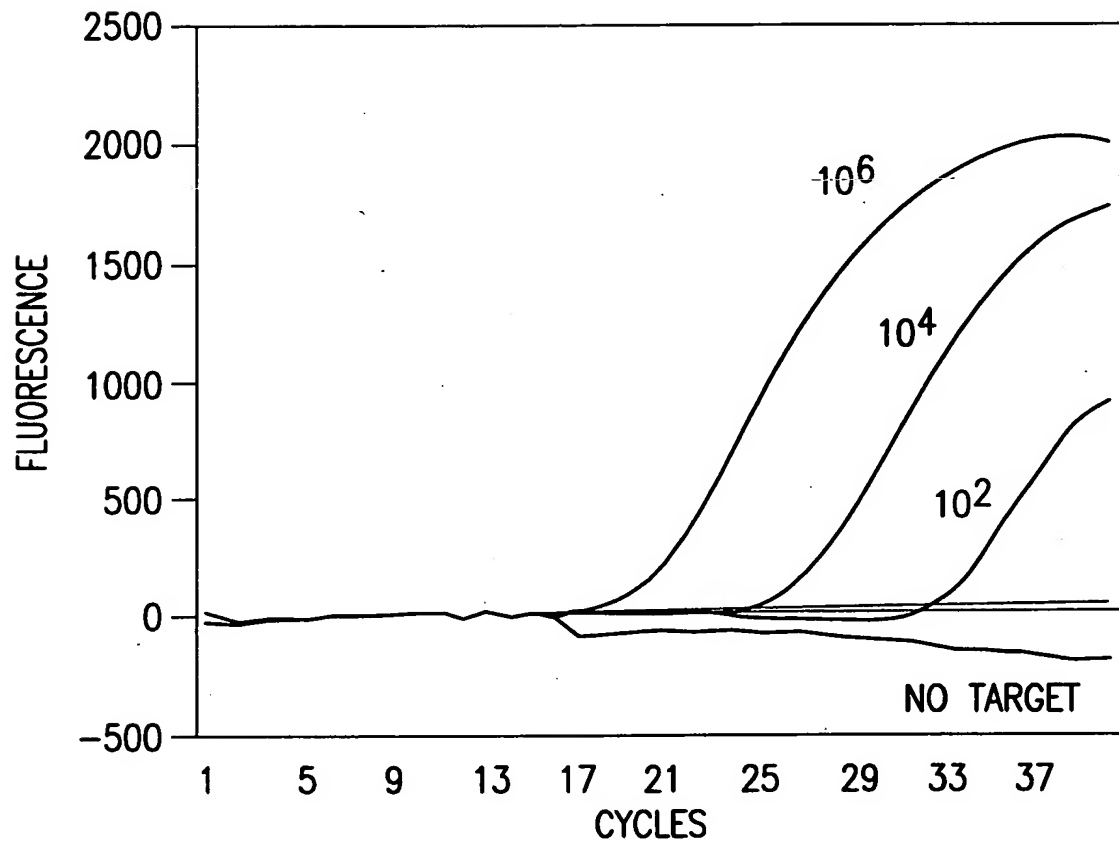


FIG.6



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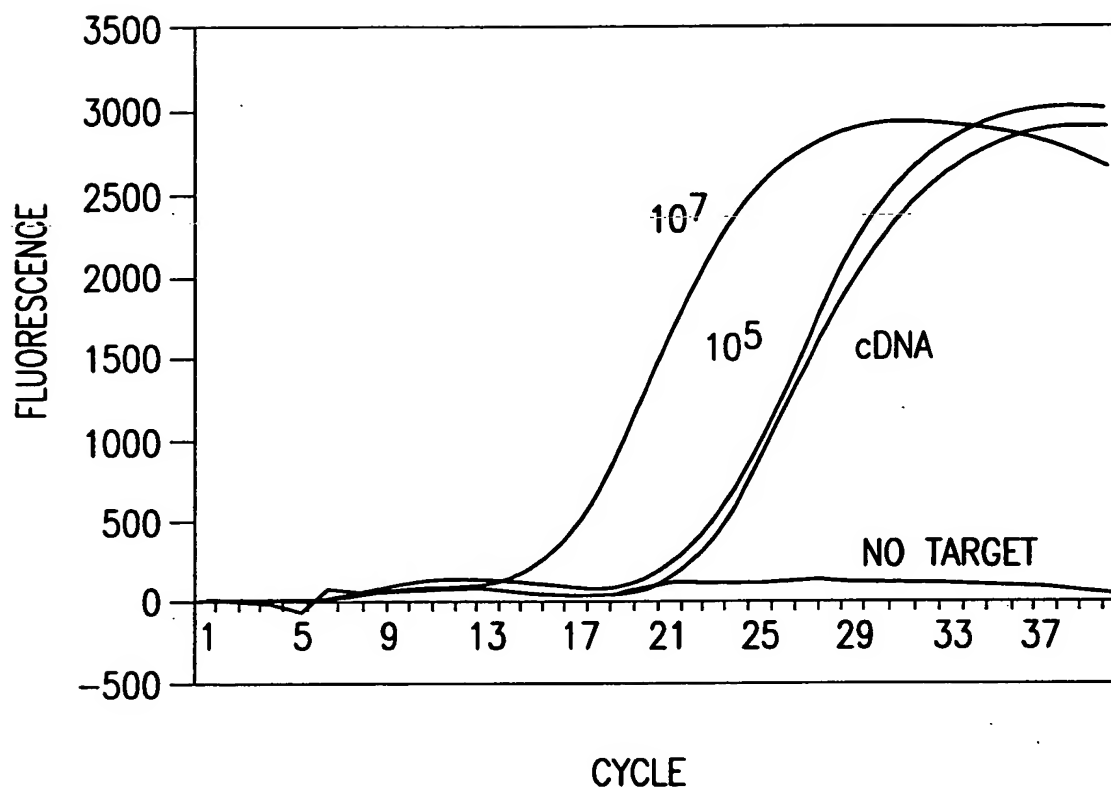


FIG.7

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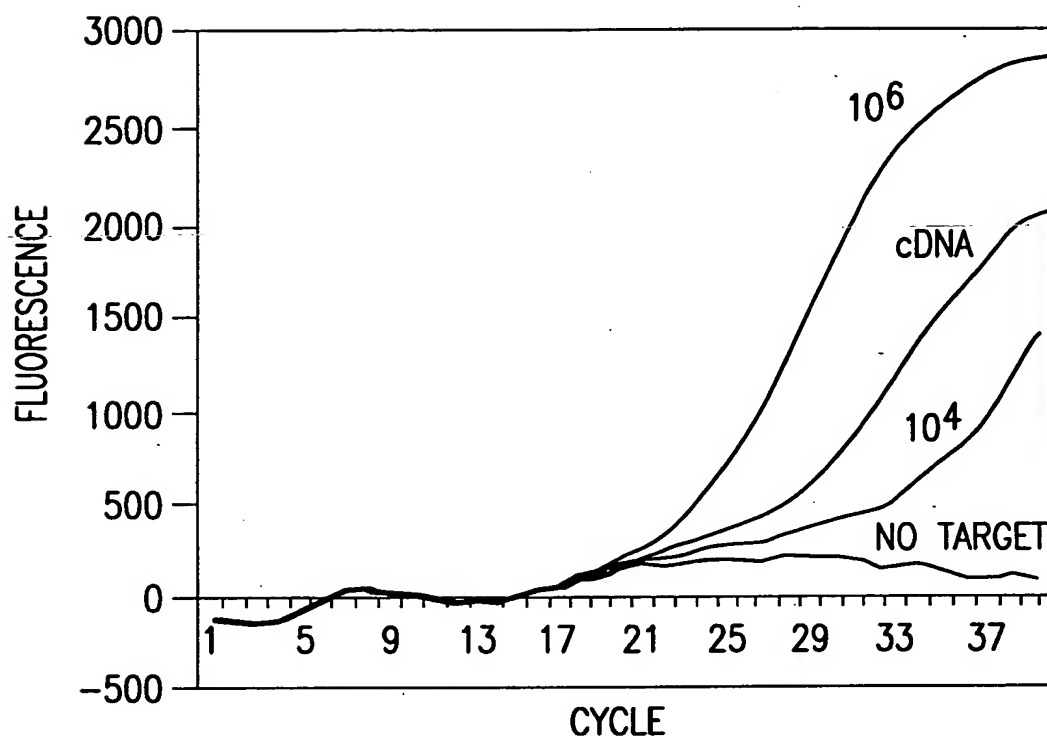


FIG.8

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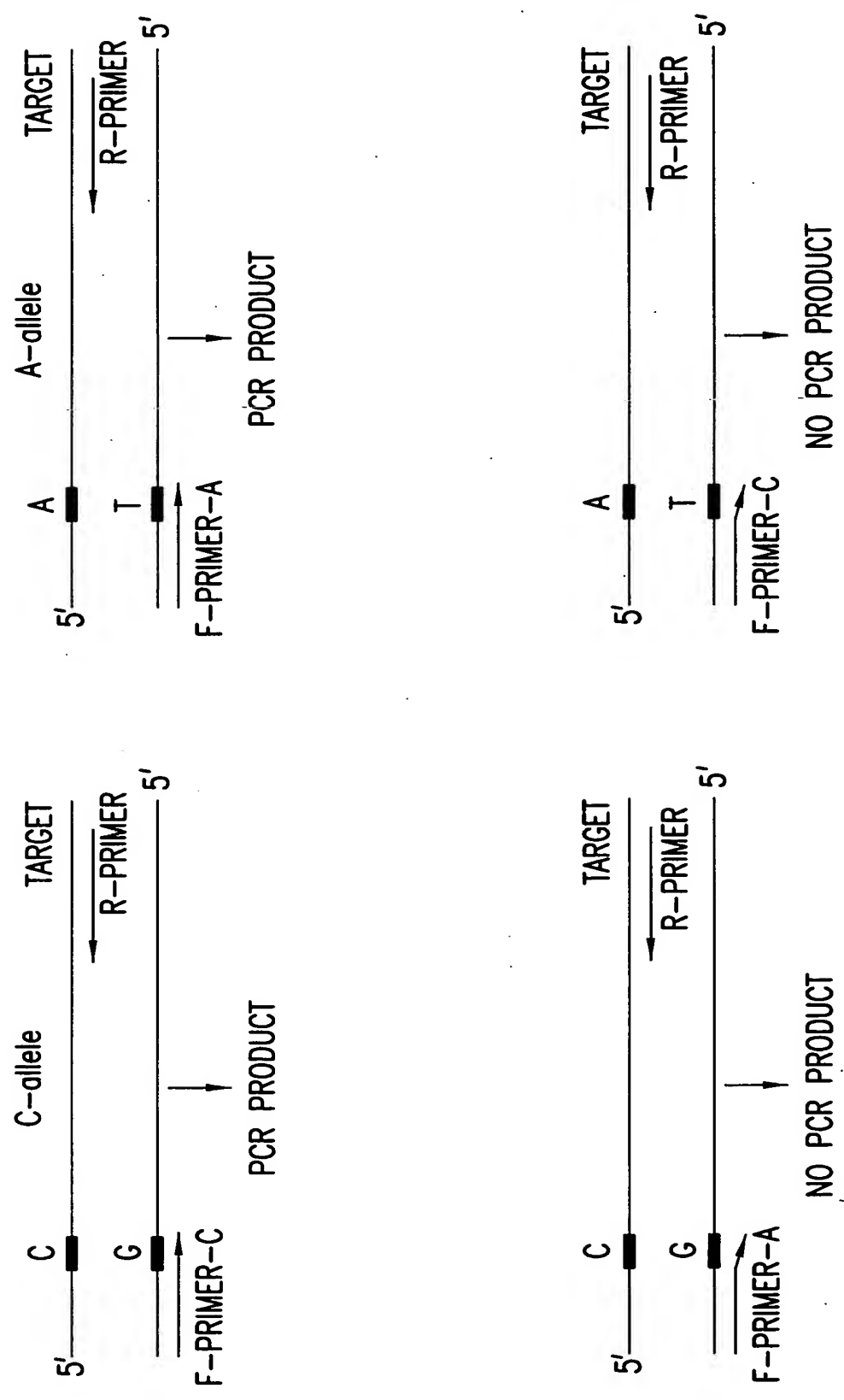
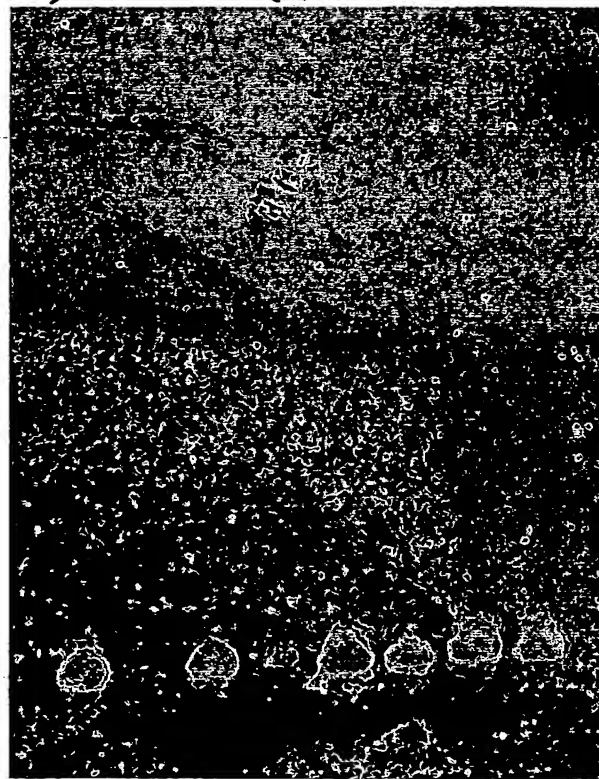


FIG.9

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modified unmodified



1 2 3 4 5 6 7 8

FIG.10

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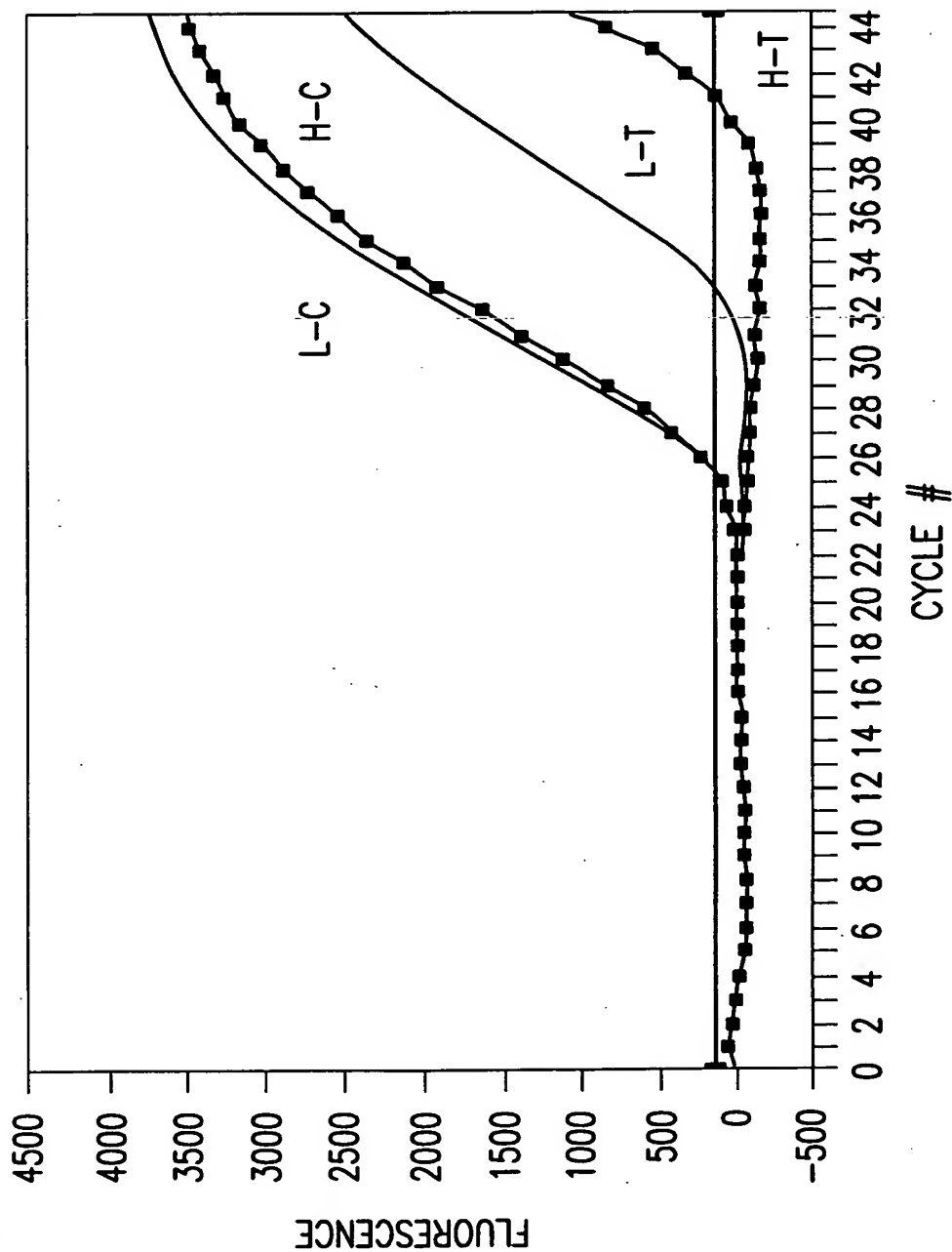


FIG.11

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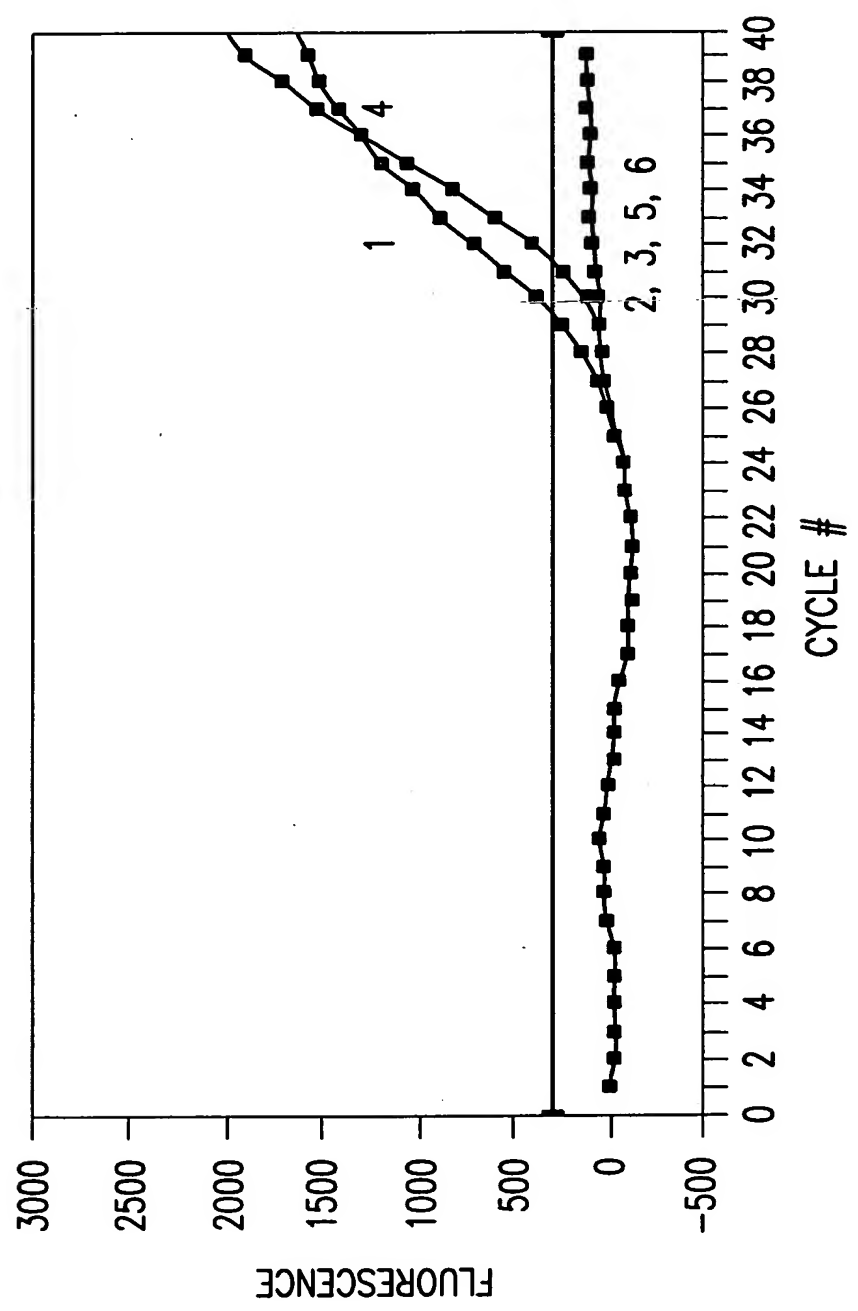


FIG.12

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DATE: 01/13/2001

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Dkt. No. 0942,498,000/RWE/AGU; Group Art Unit: 1  
Inventor(s): NAZARENKO *et al.*; Tel: 202/371-2600  
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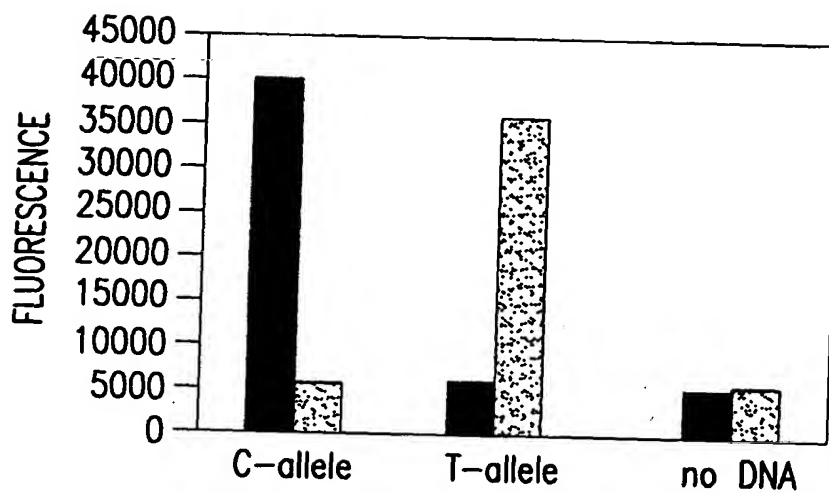


FIG.13A

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BY [illegible]  
[illegible]

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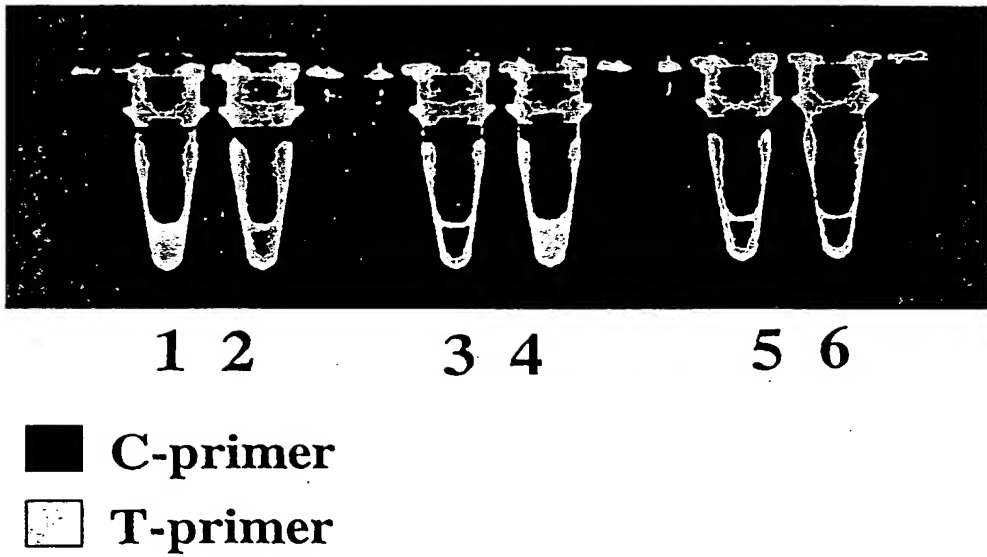
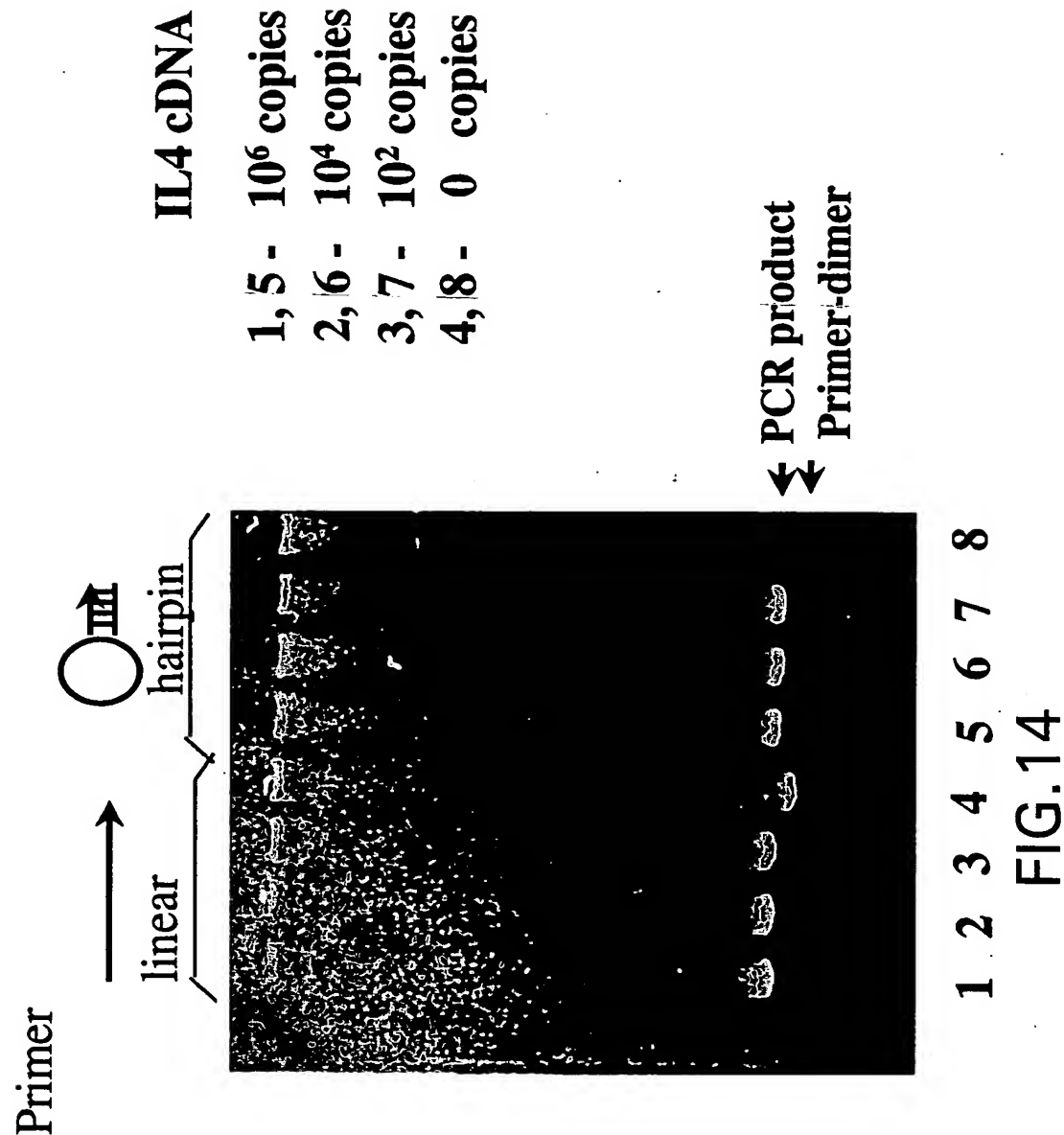


FIG.13B



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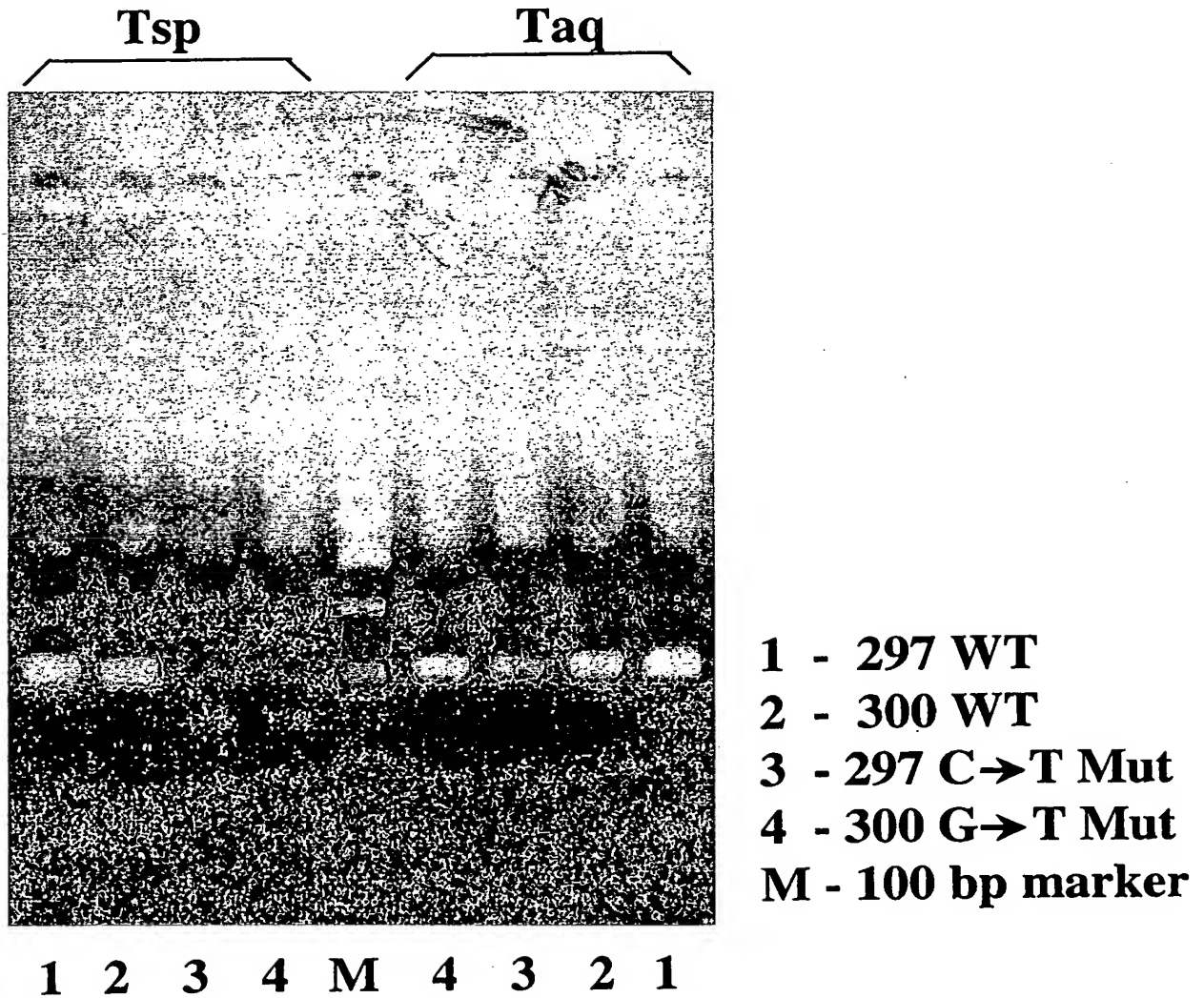


FIG.15

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M-1 kb marker  
 1, 2 - 50 ng DNA  
 3, 4 - 20 ng DNA  
 5, 6 - no DNA

MM 1 2 3 4 5 6

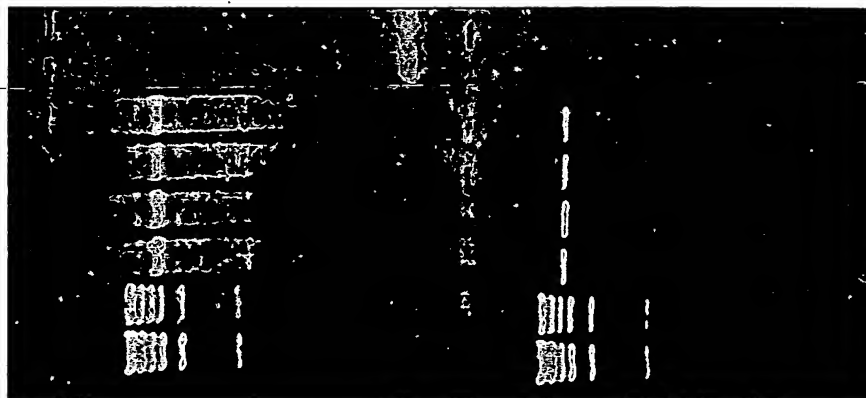


FIG.16B

MM 1 2 3 4 5 6

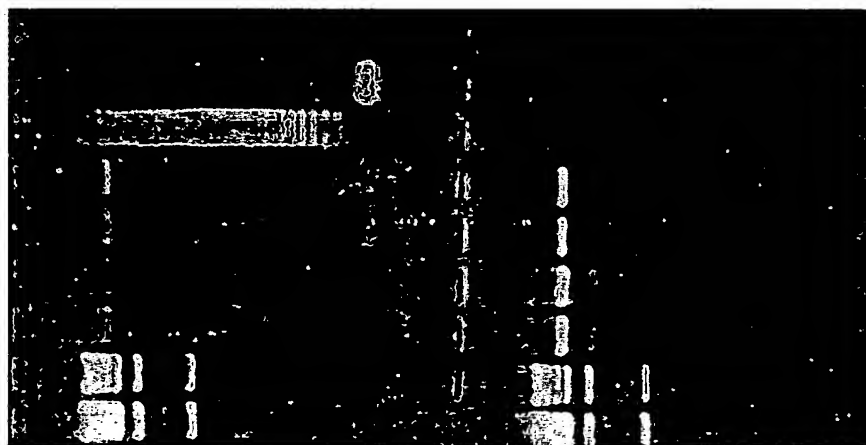


FIG.16A

Linear  
 Primers

Hairpin  
 Primers

10083797 . 052802  
BY 10/26/2001

10083797 . 052802

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FIG.17A

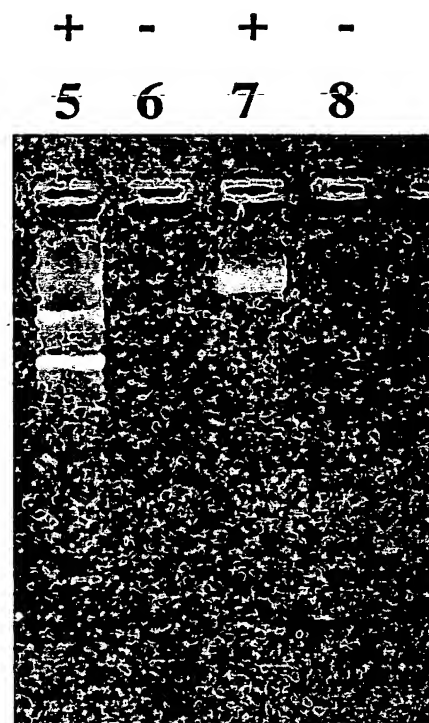


FIG.17B

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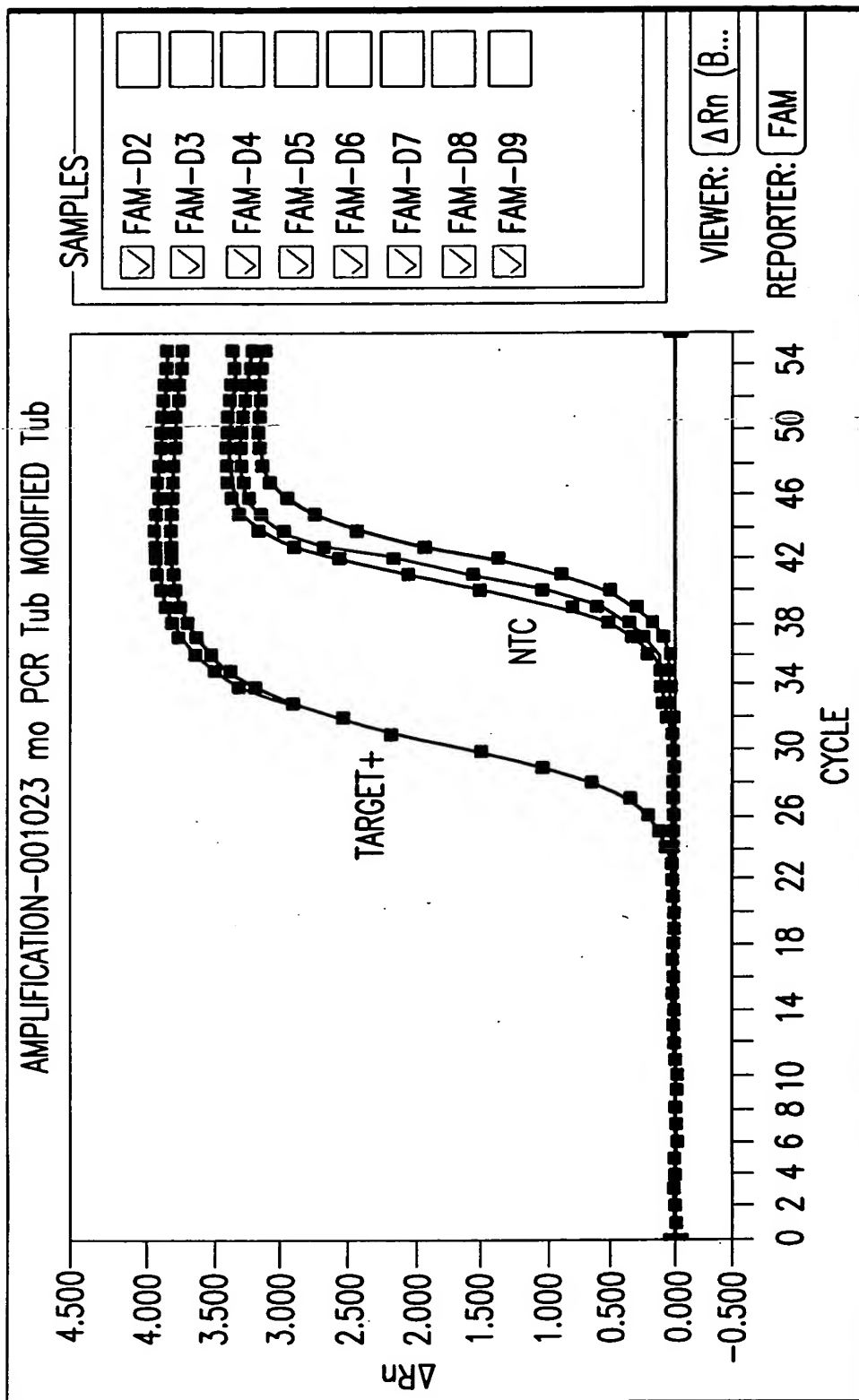


FIG.18A

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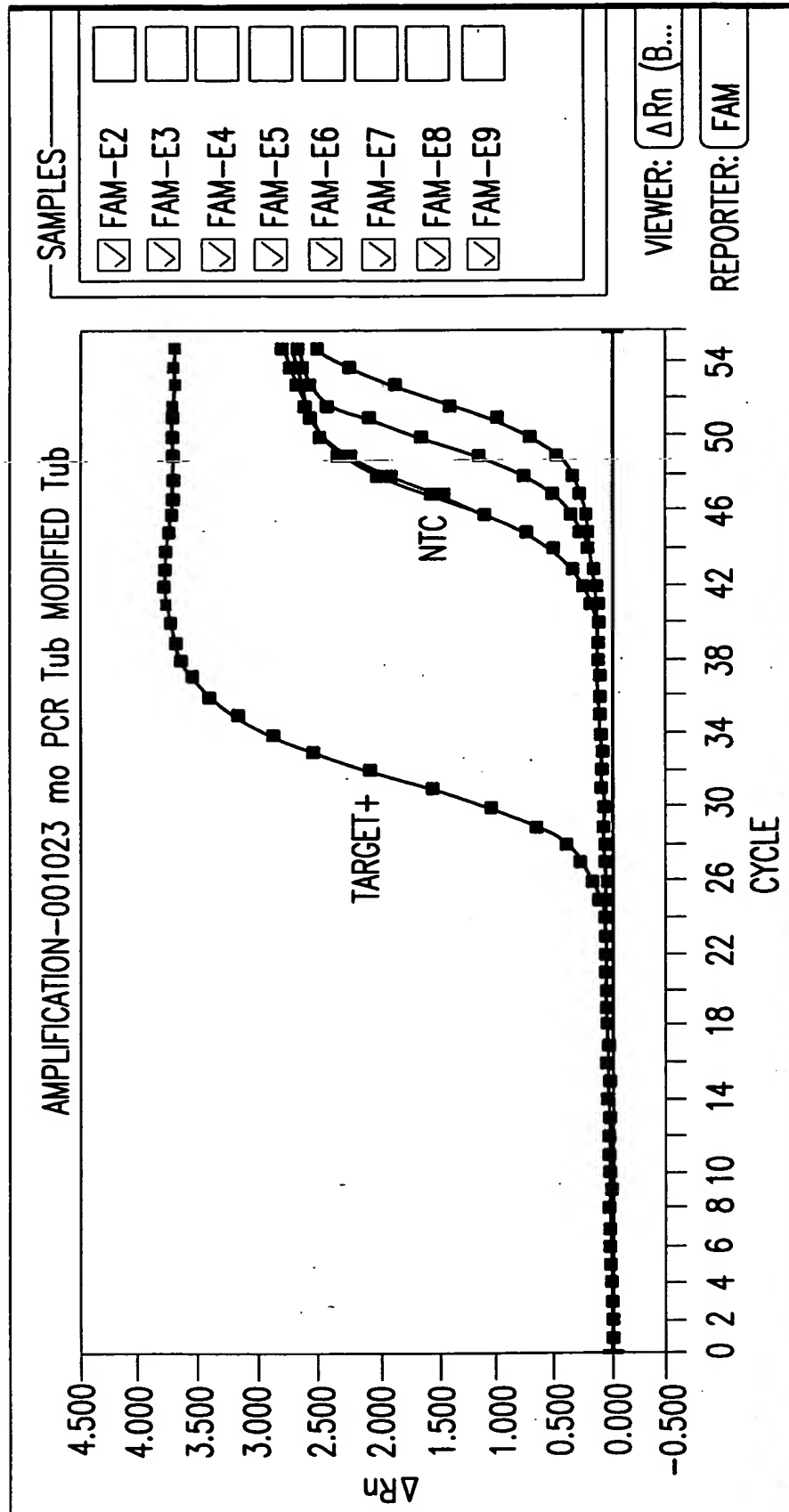


FIG.18B

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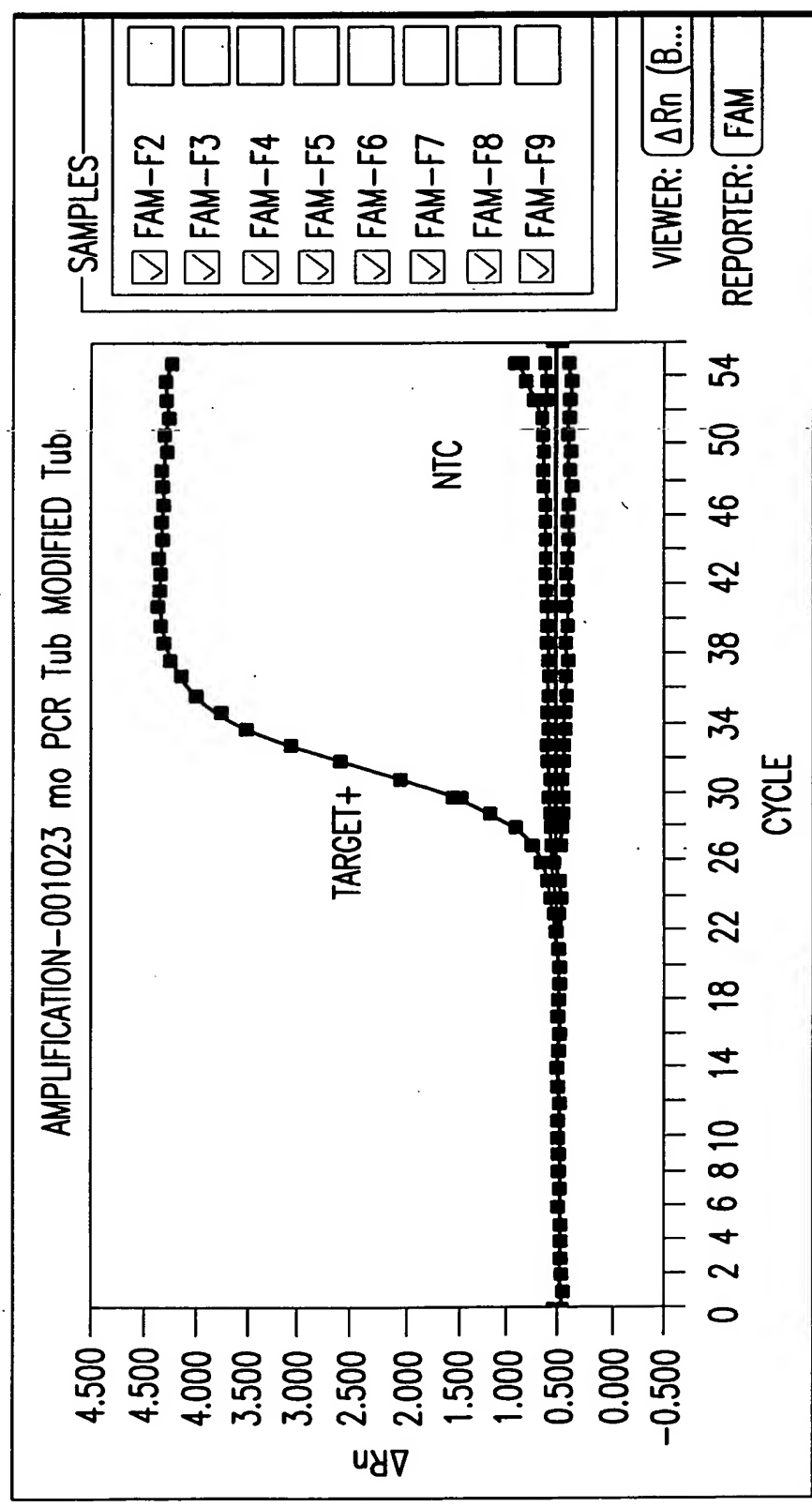


FIG.18D



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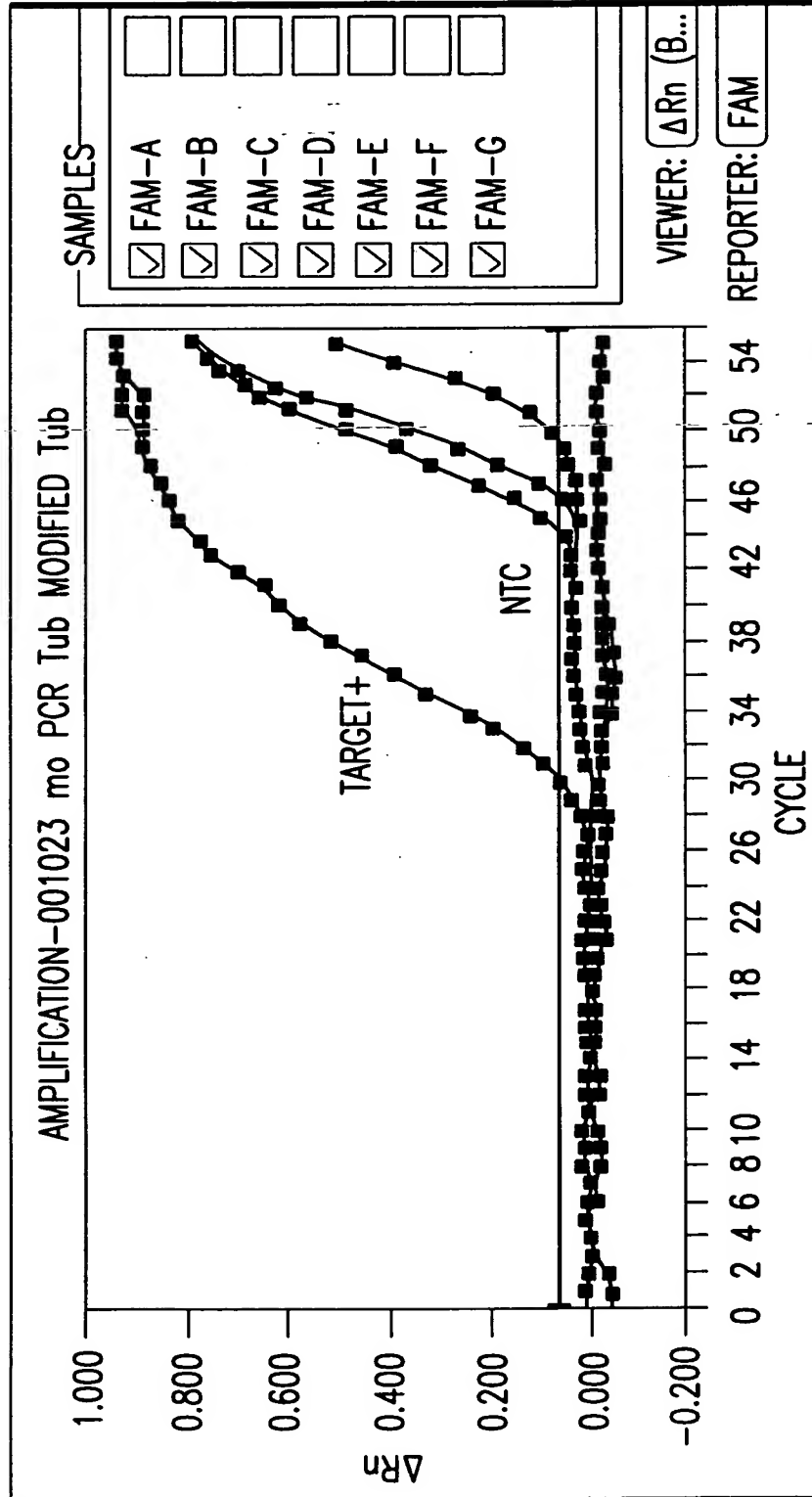


FIG.19A

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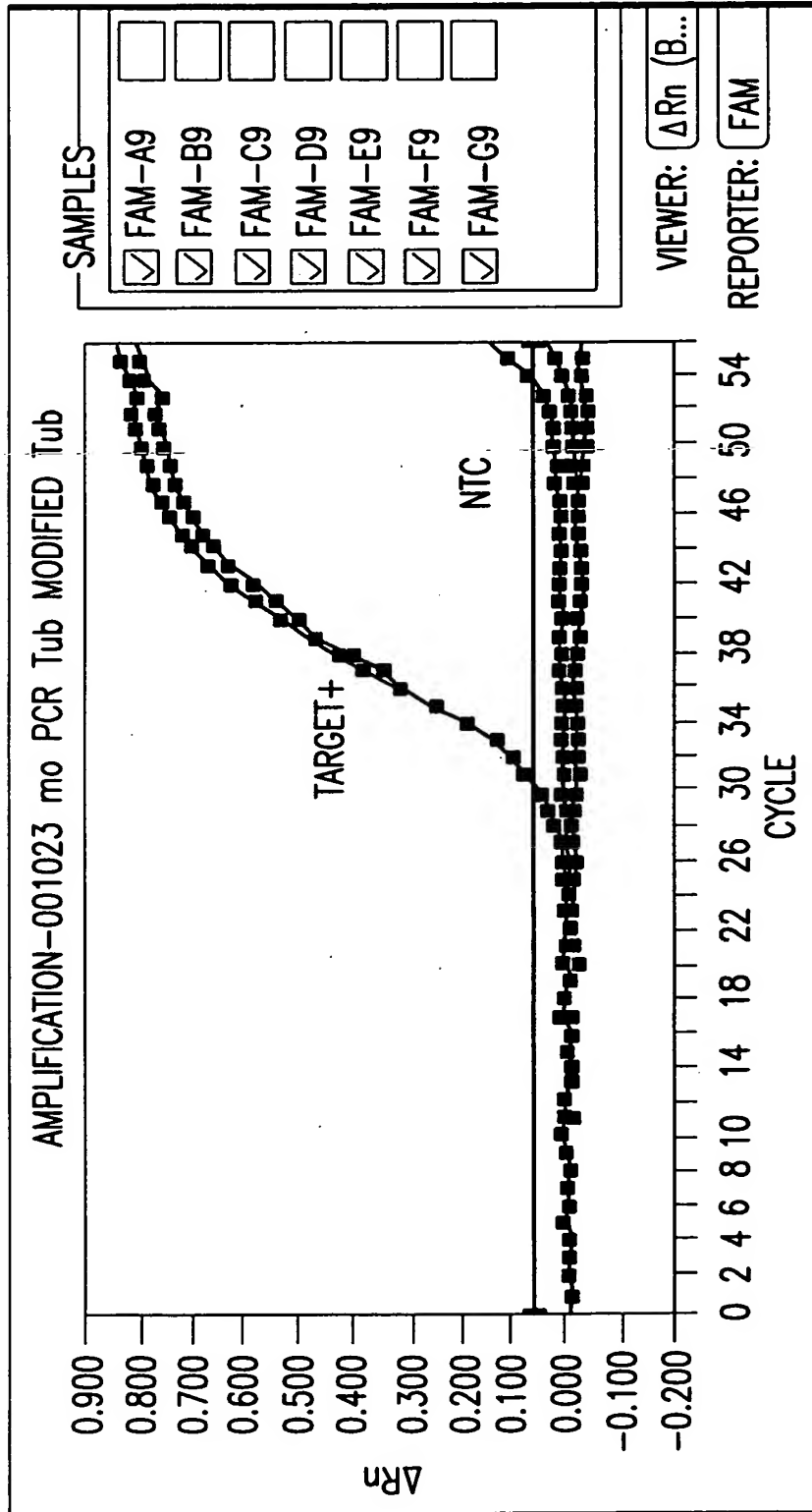


FIG.19B

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DATE		

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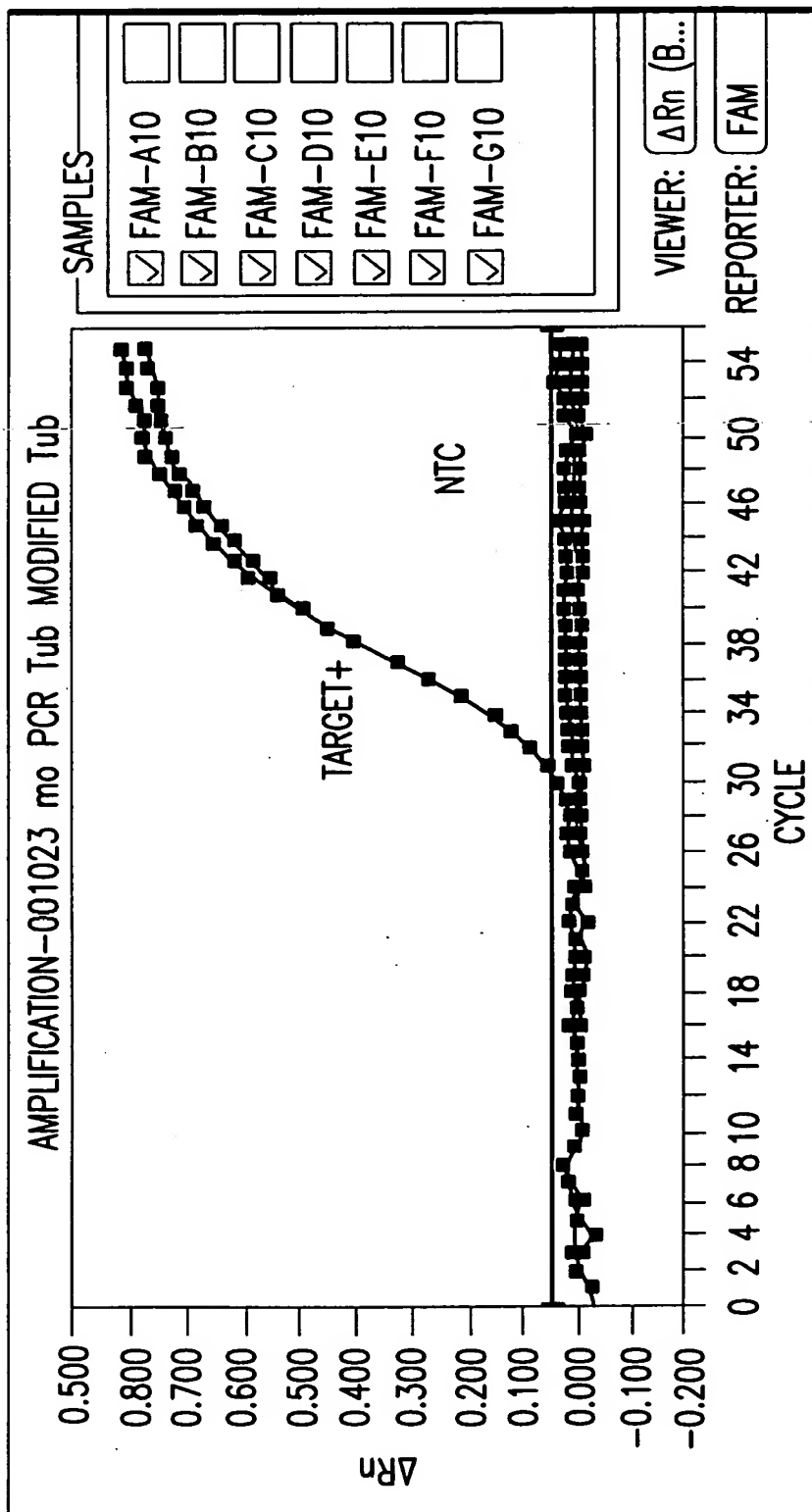


FIG.19C

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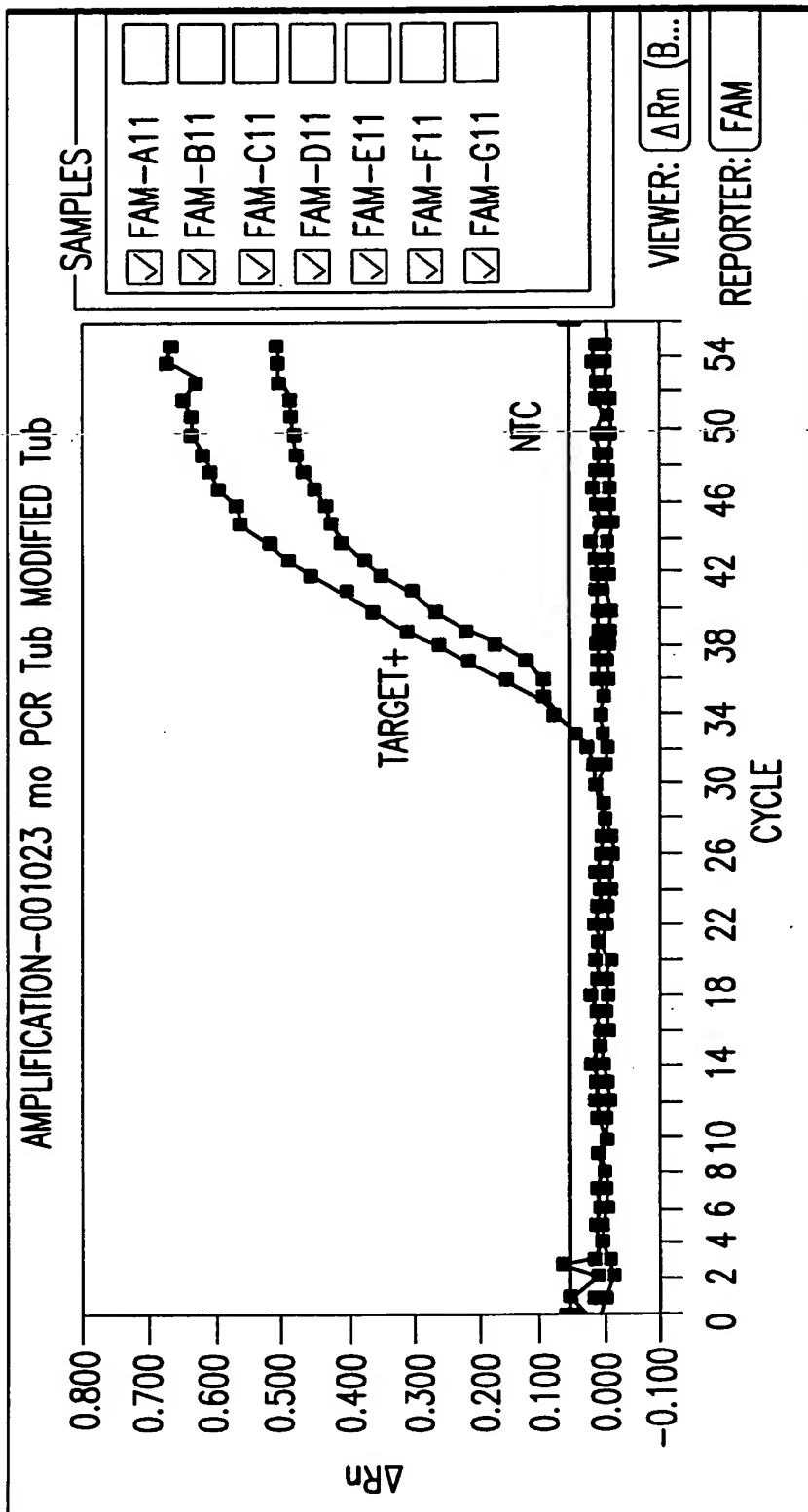


FIG.19D

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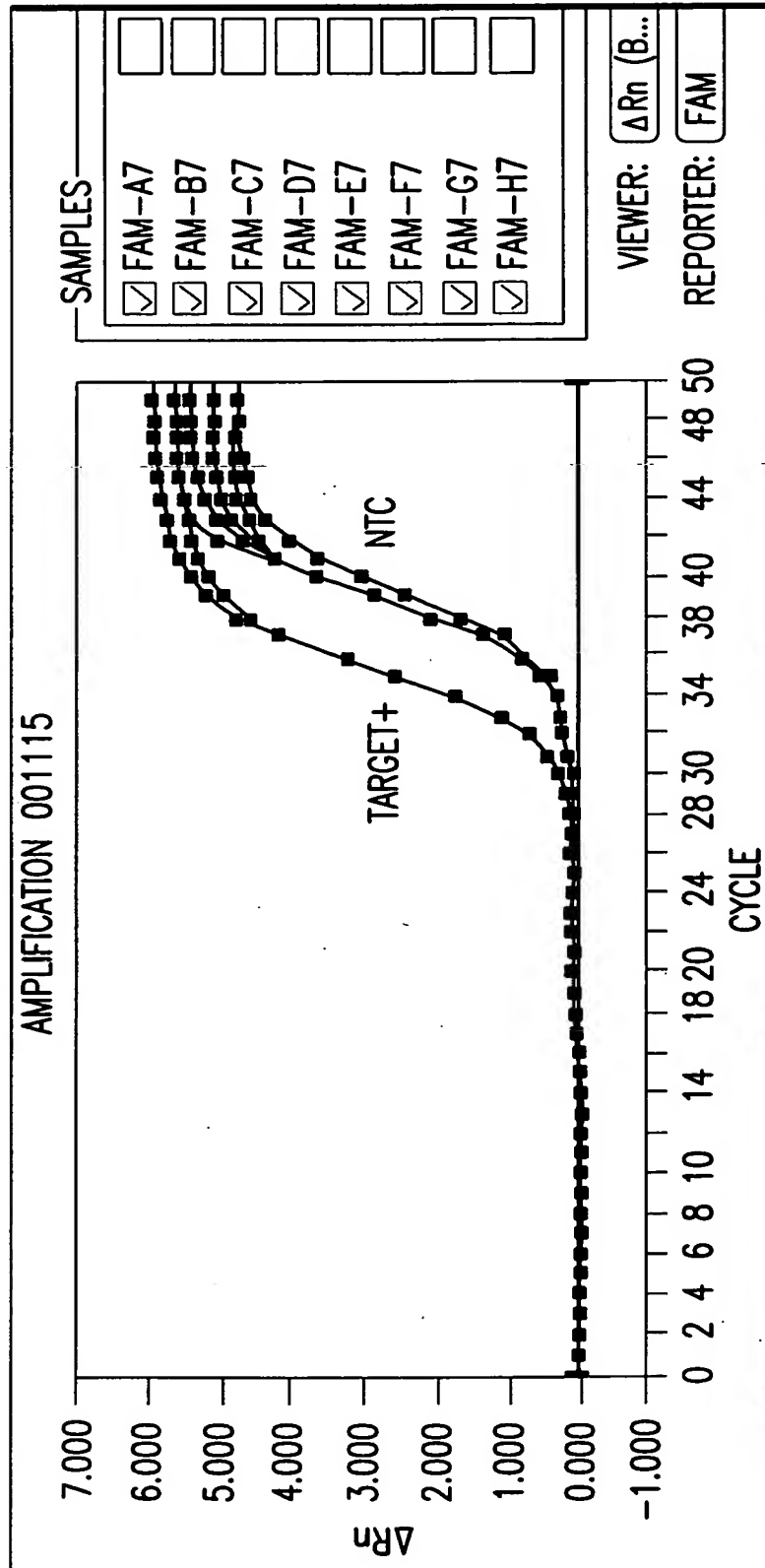


FIG.20A

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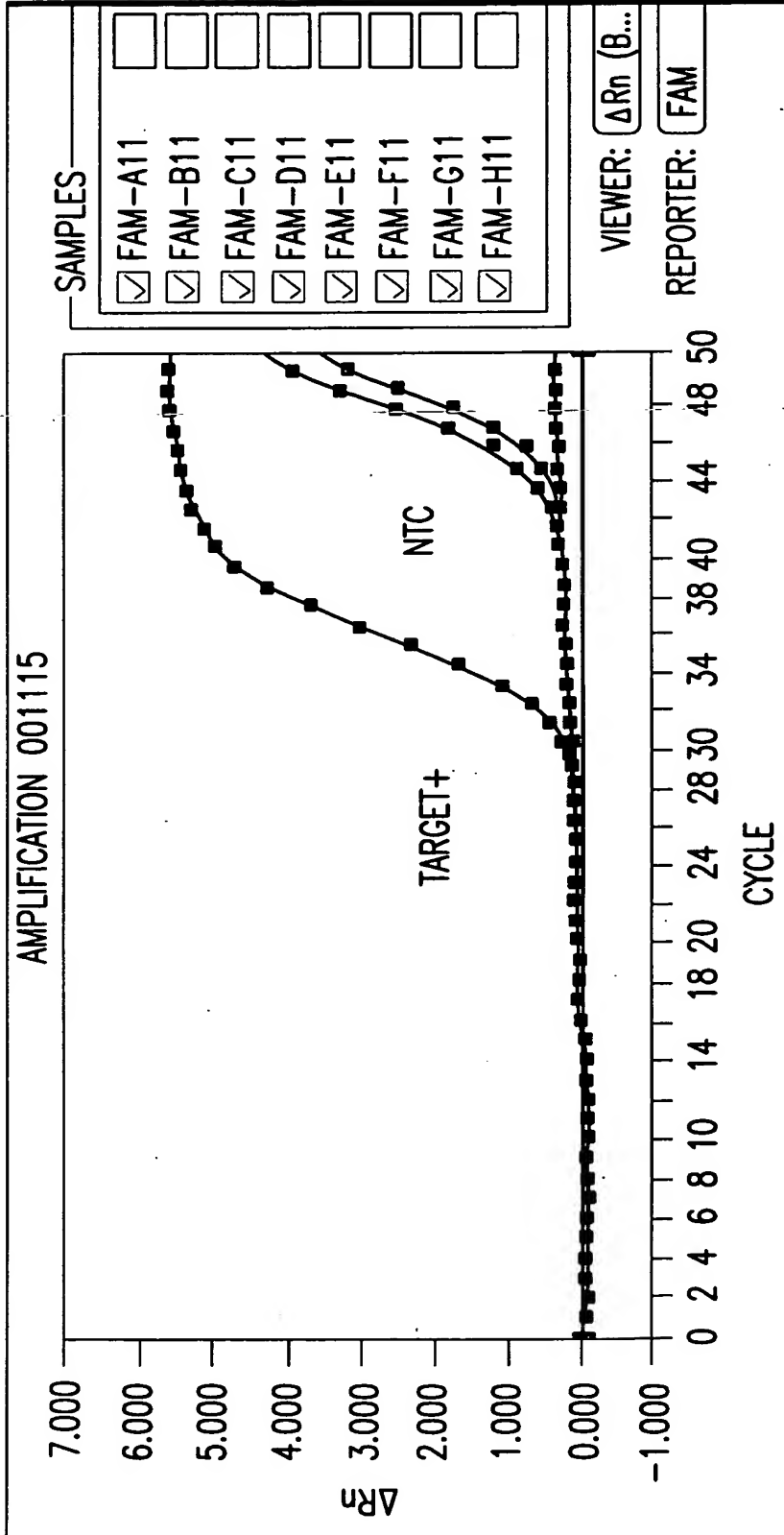


FIG.20B

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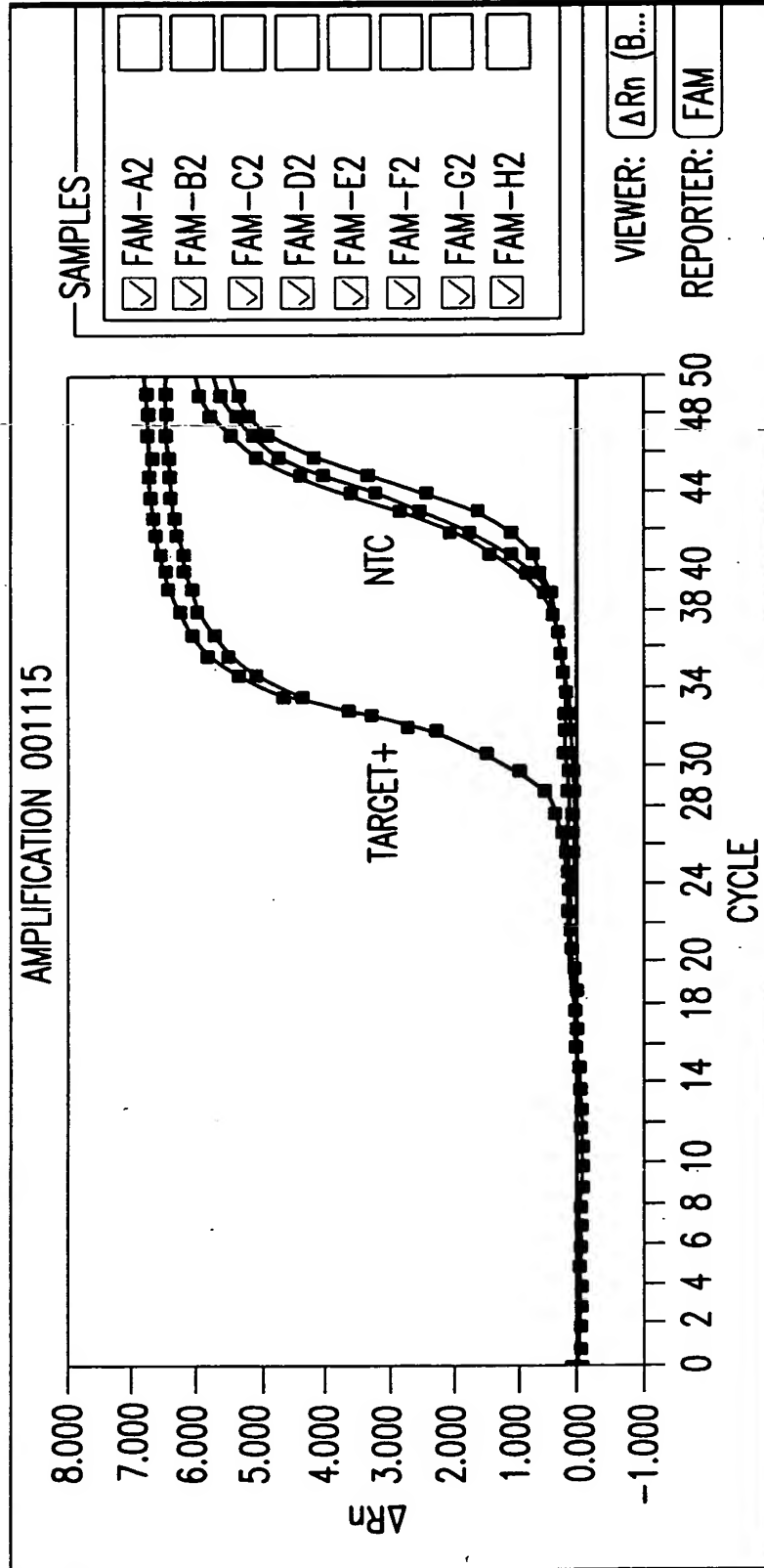


FIG.20C

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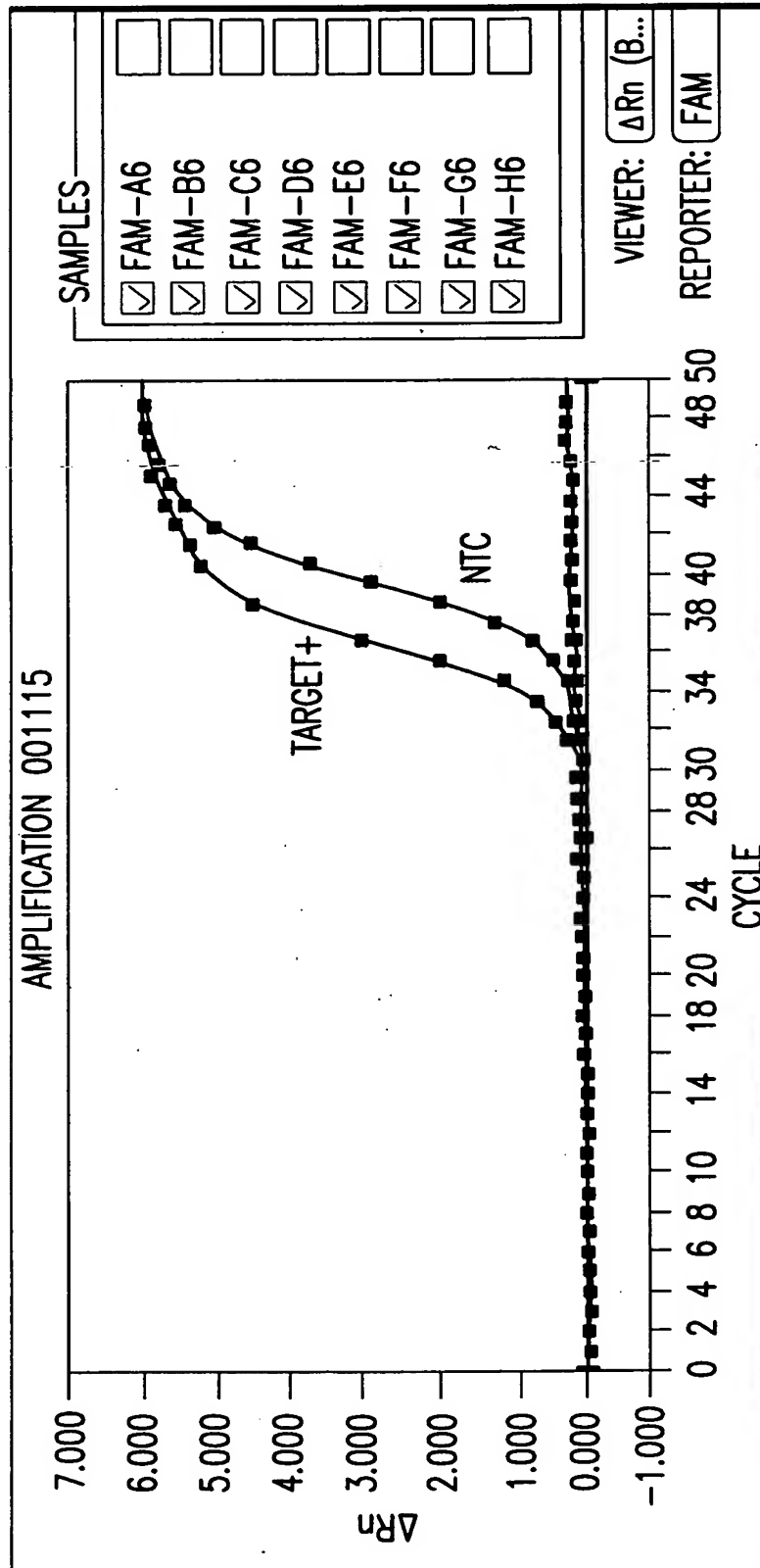


FIG.20D



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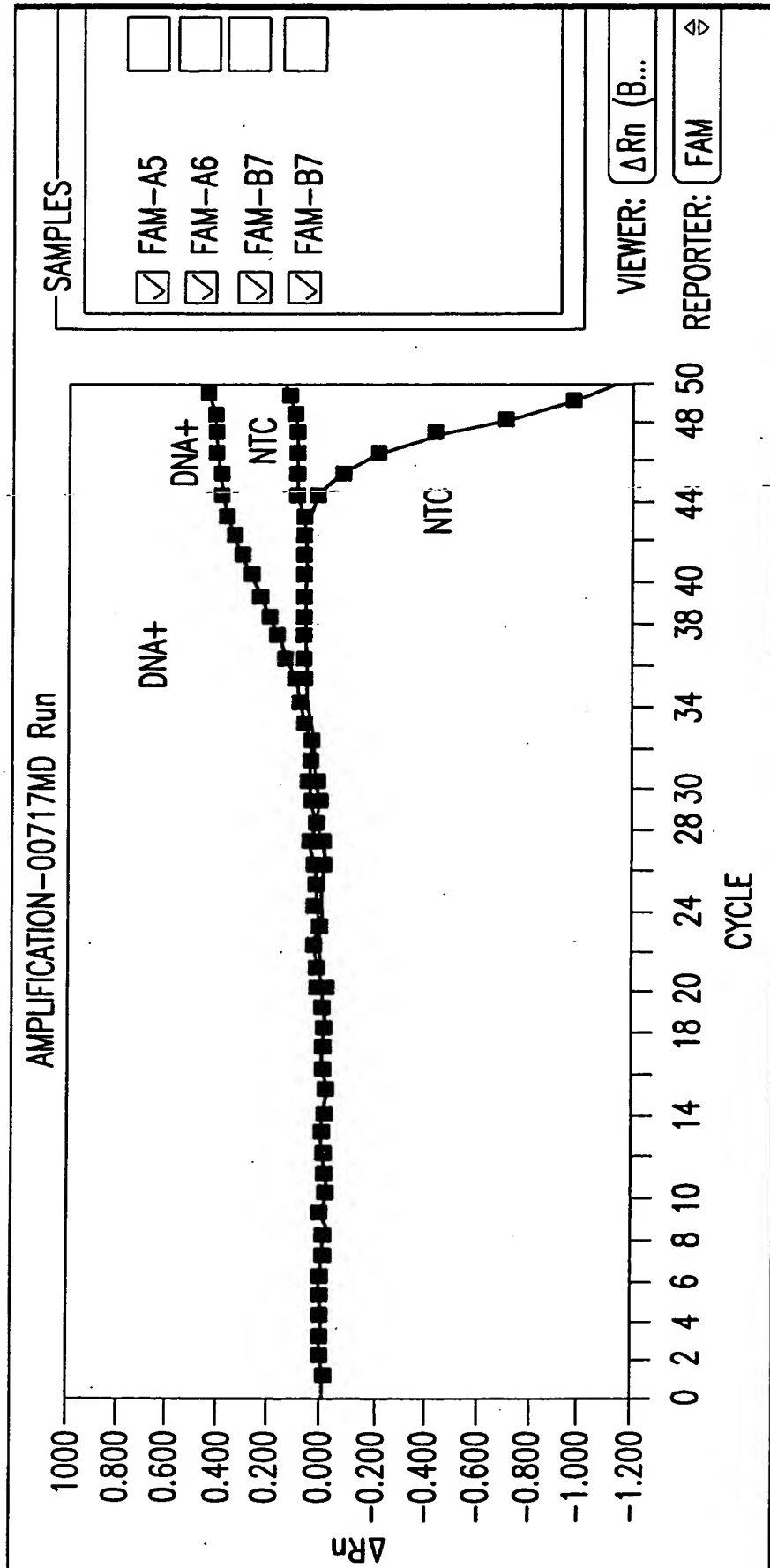


FIG.21

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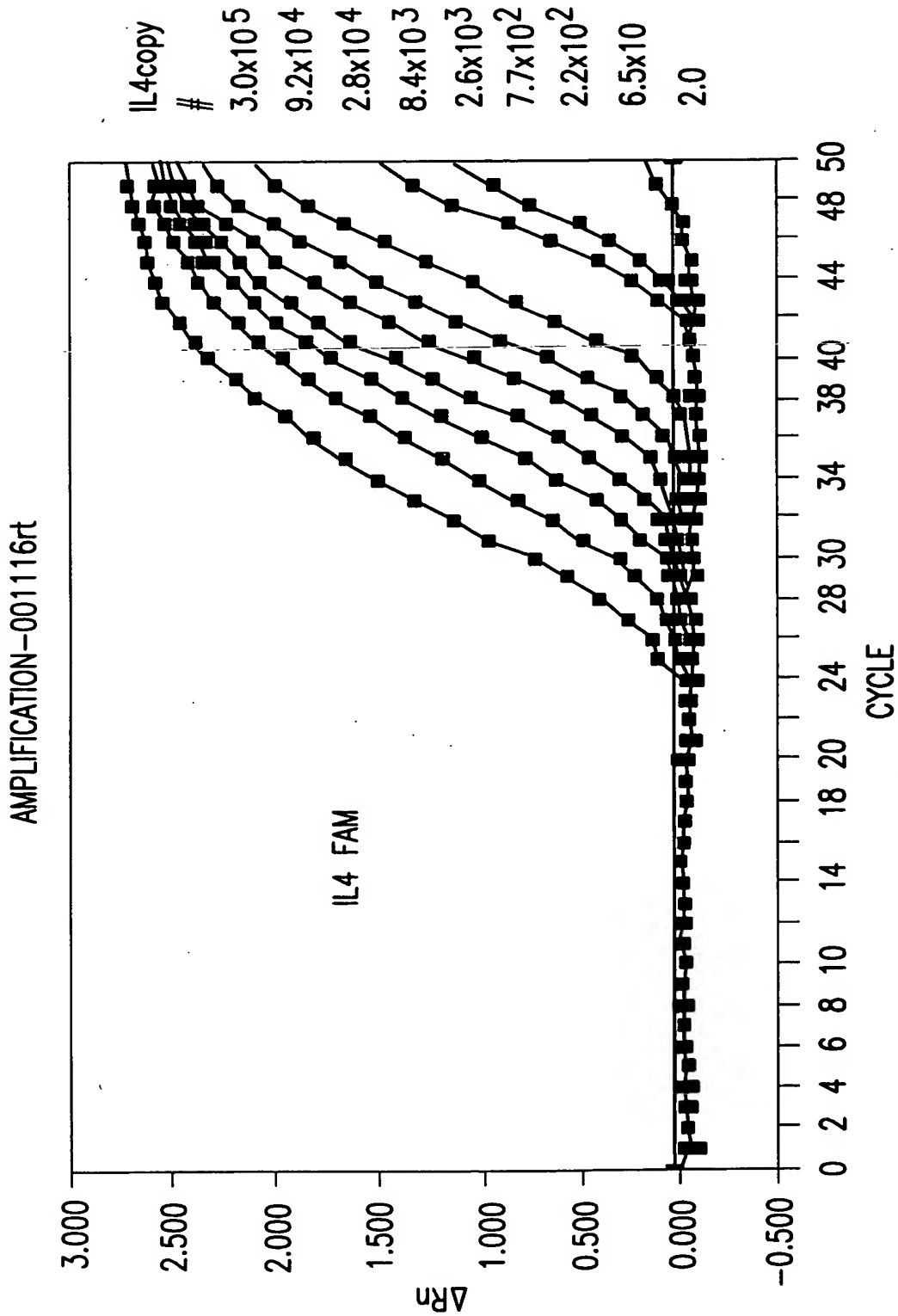


FIG.22A

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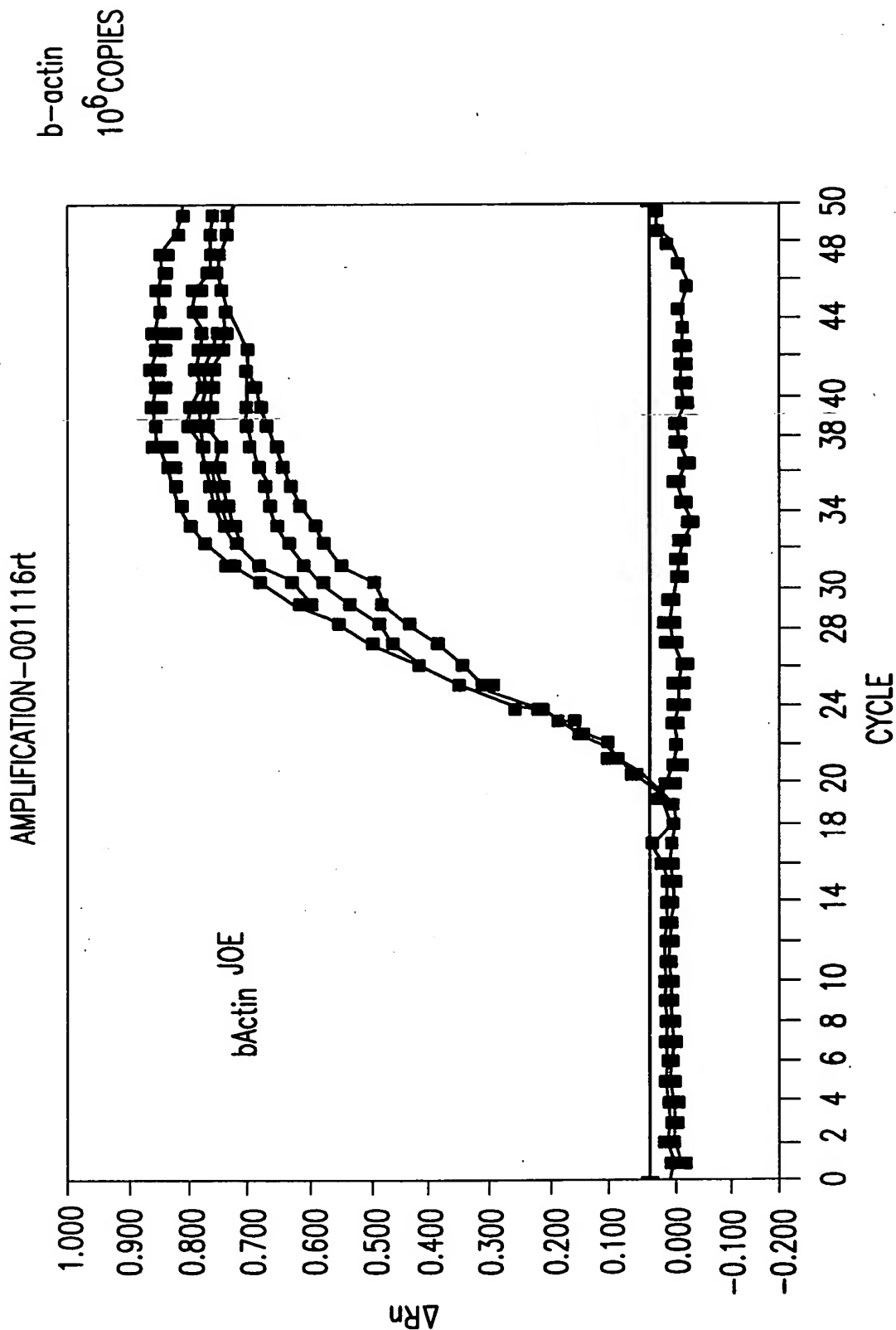


FIG.22B

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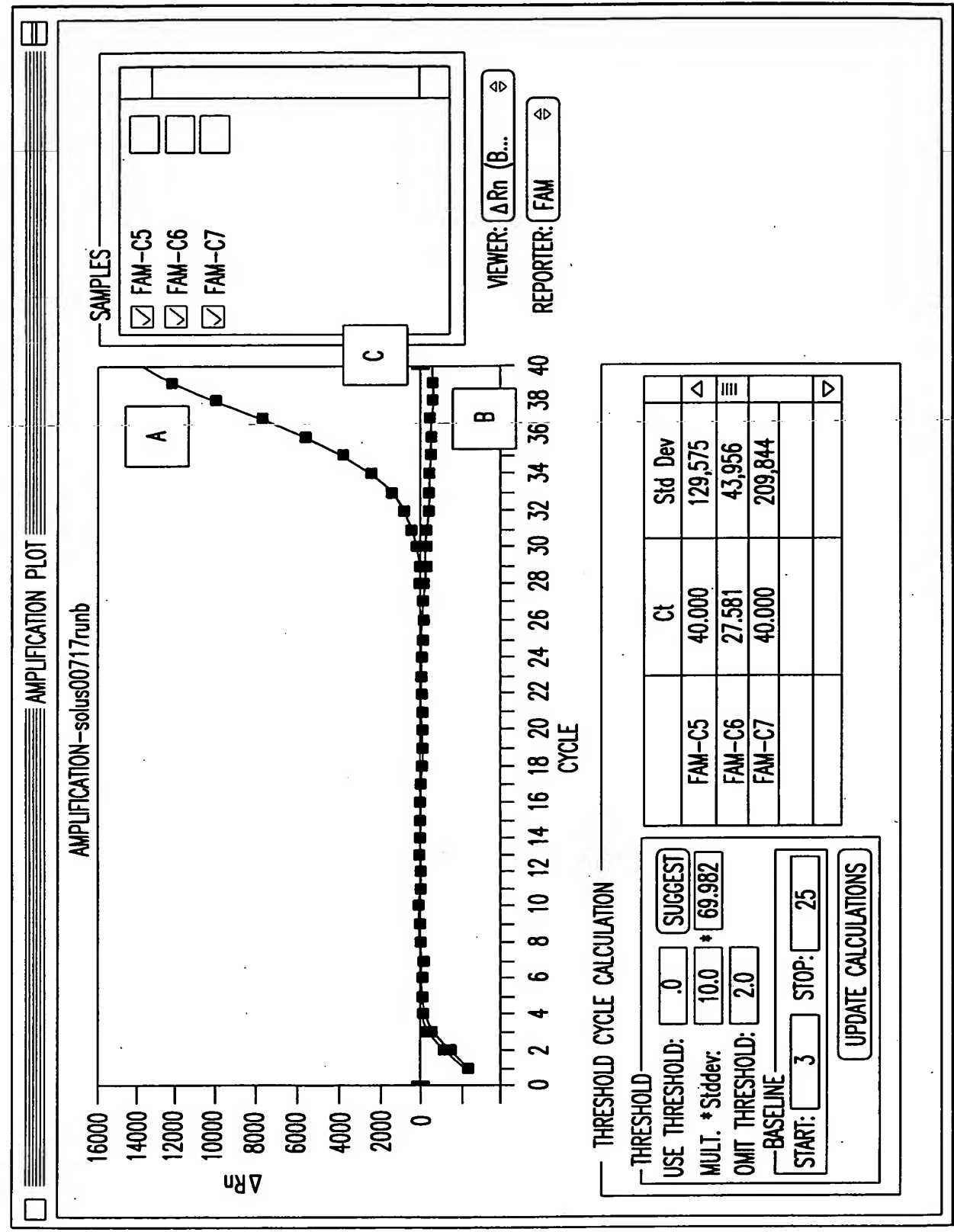


FIG.23

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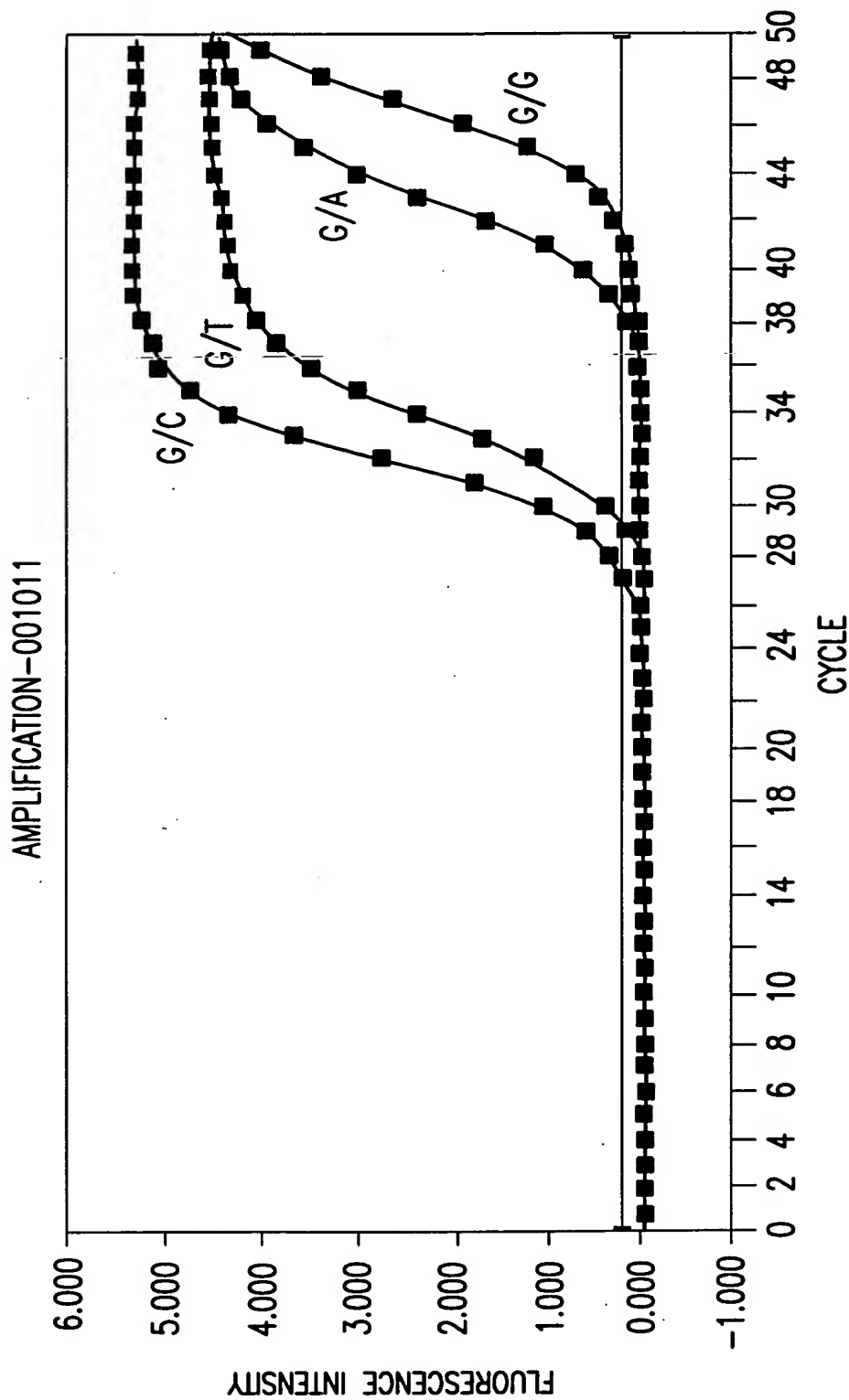


FIG.24A

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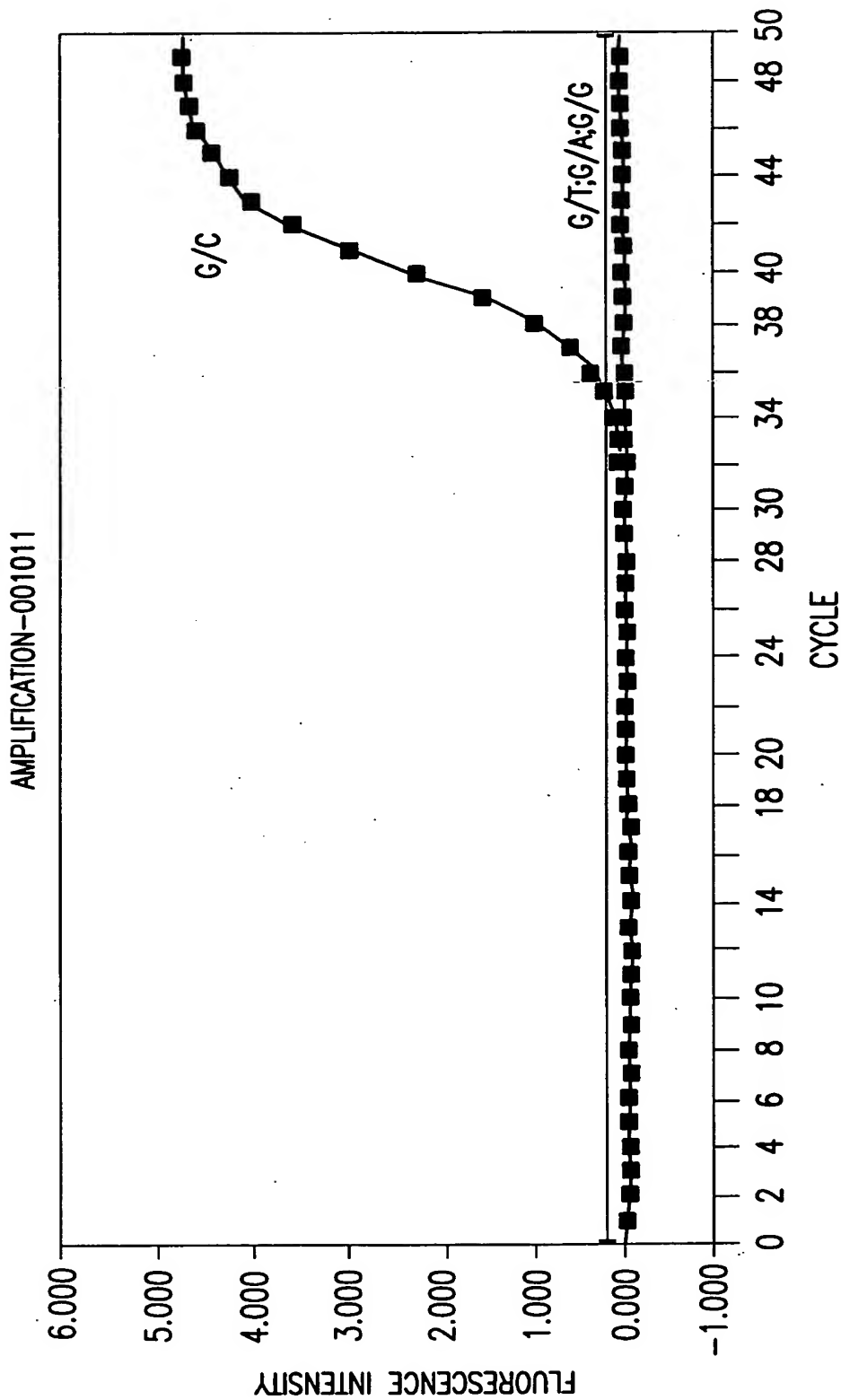
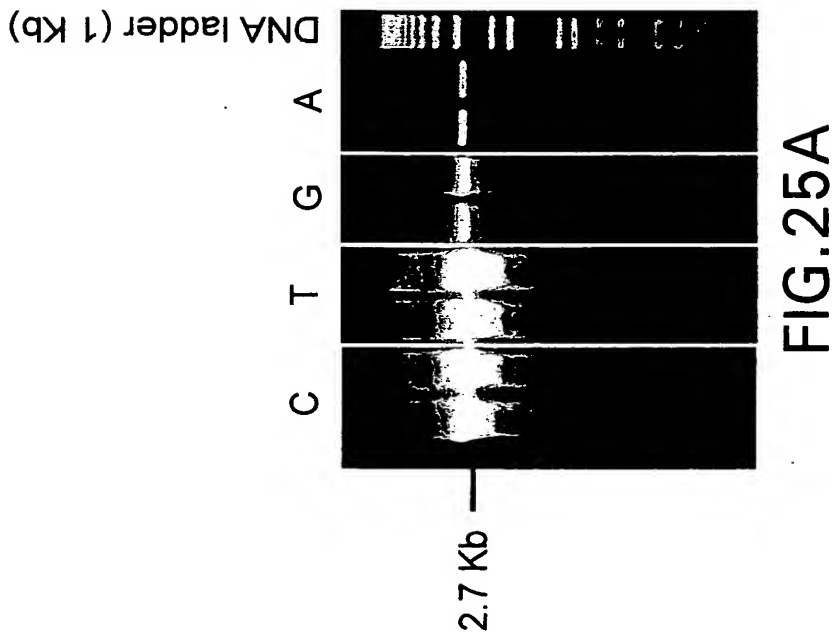
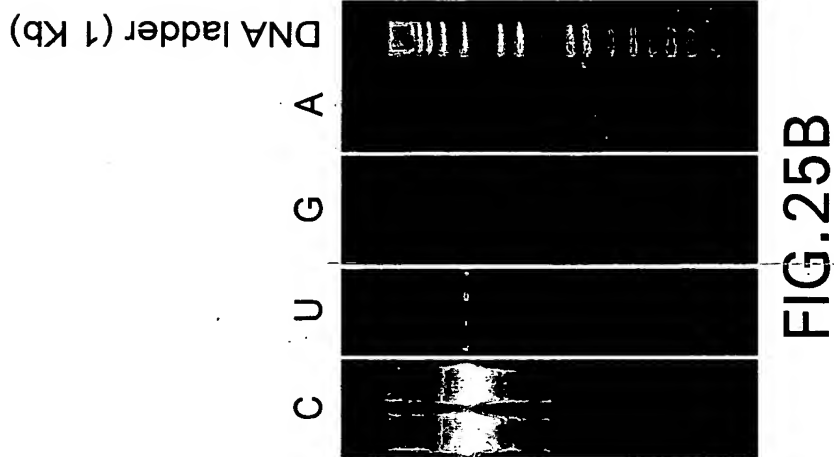


FIG.24B

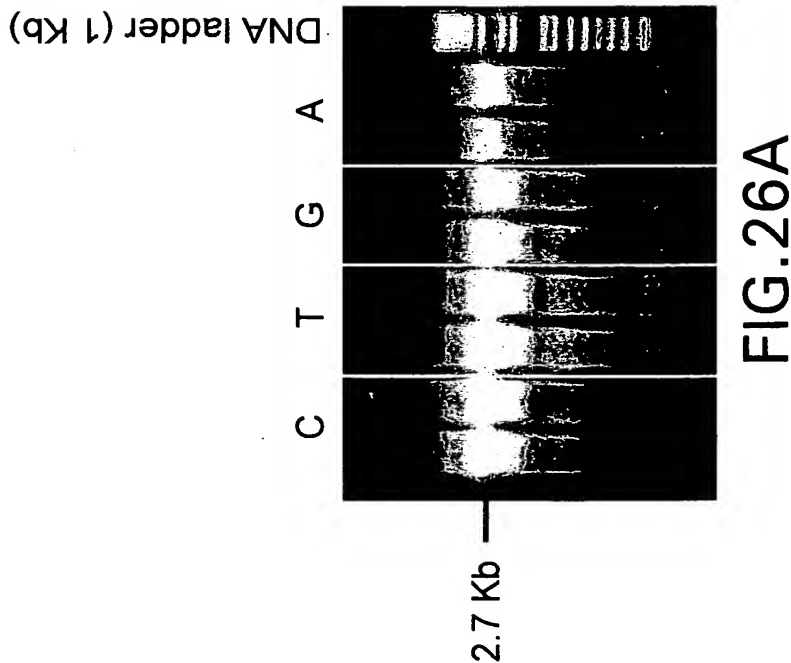
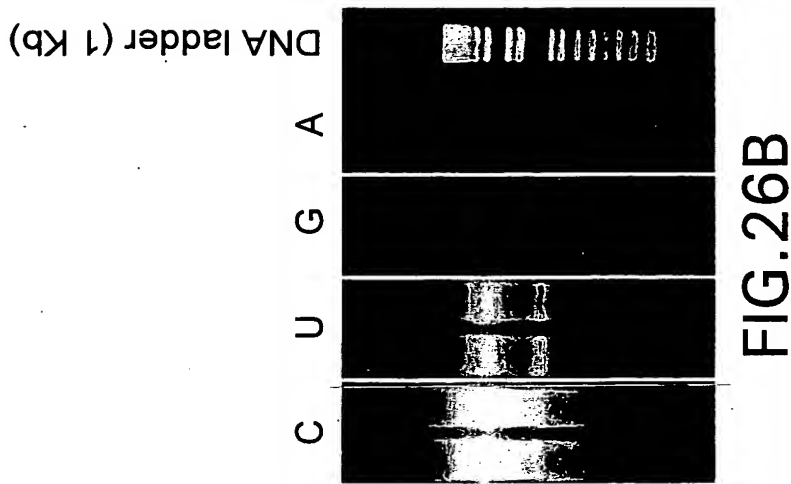
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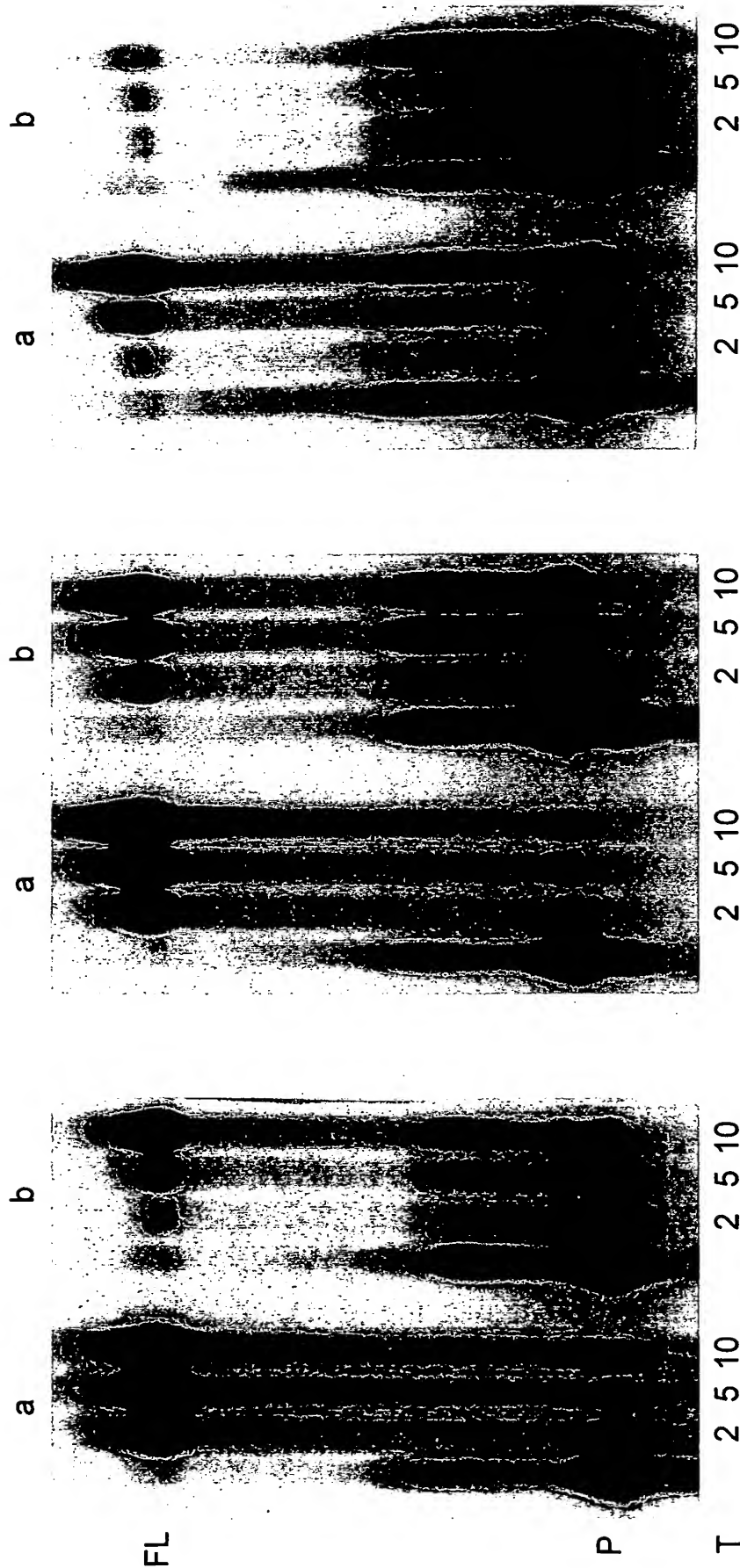


FIG. 27C

FIG. 27B

FIG. 27A

Appl. No. 10/026,952; Filed: December 27, 2001  
Dkt. No. 0942.4980006/RWE/AGU; Group Art Unit: 1623  
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Title: Primers and Methods for the Detection and Discrimination  
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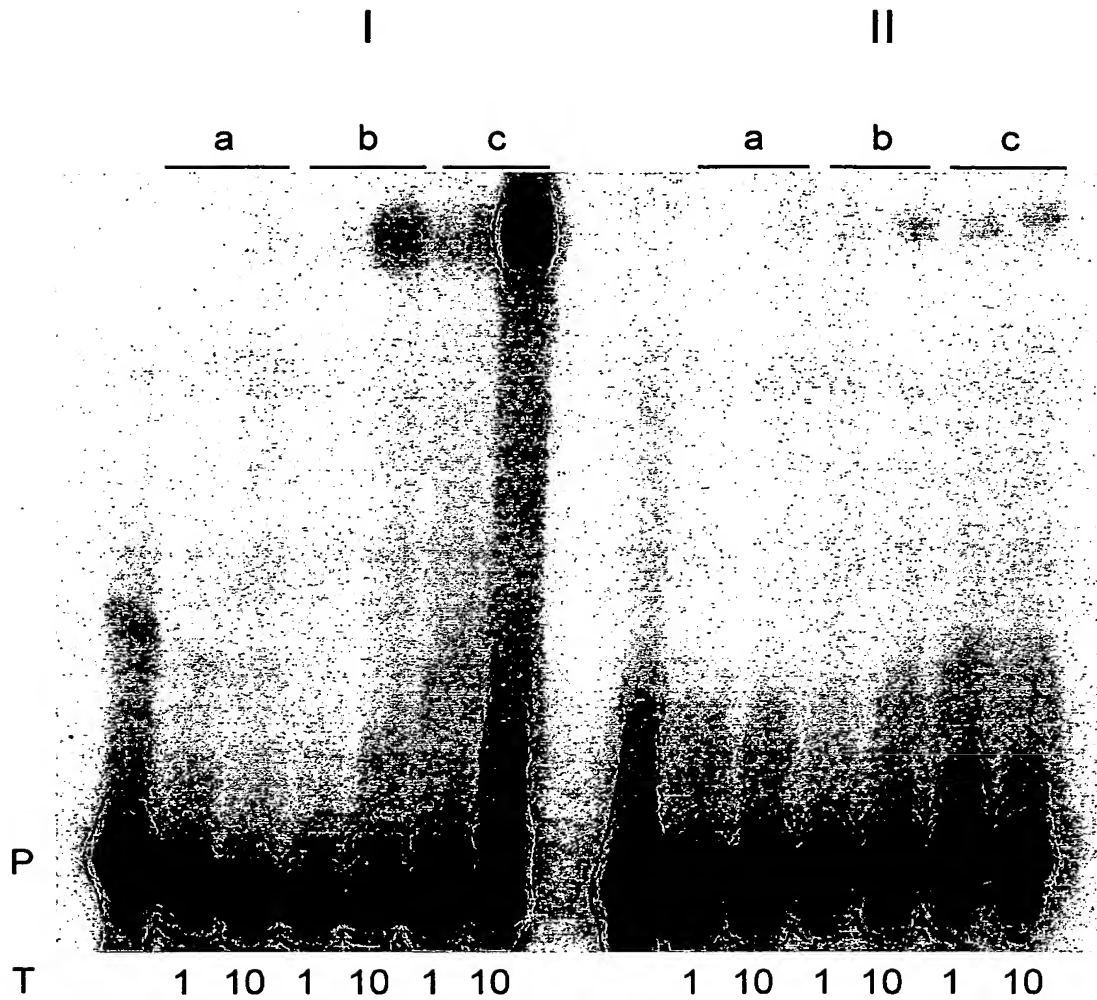


FIG.28

Appl. No. 10/026,952; Filed: December 27, 2001  
 Dkt. No. 0942.4980006/RWE/AGU; Group Art Unit: 1623  
 Inventor(s): NAZARENKO *et al.*; Tel: 202/371-2600  
 Title: Primers and Methods for the Detection and Discrimination  
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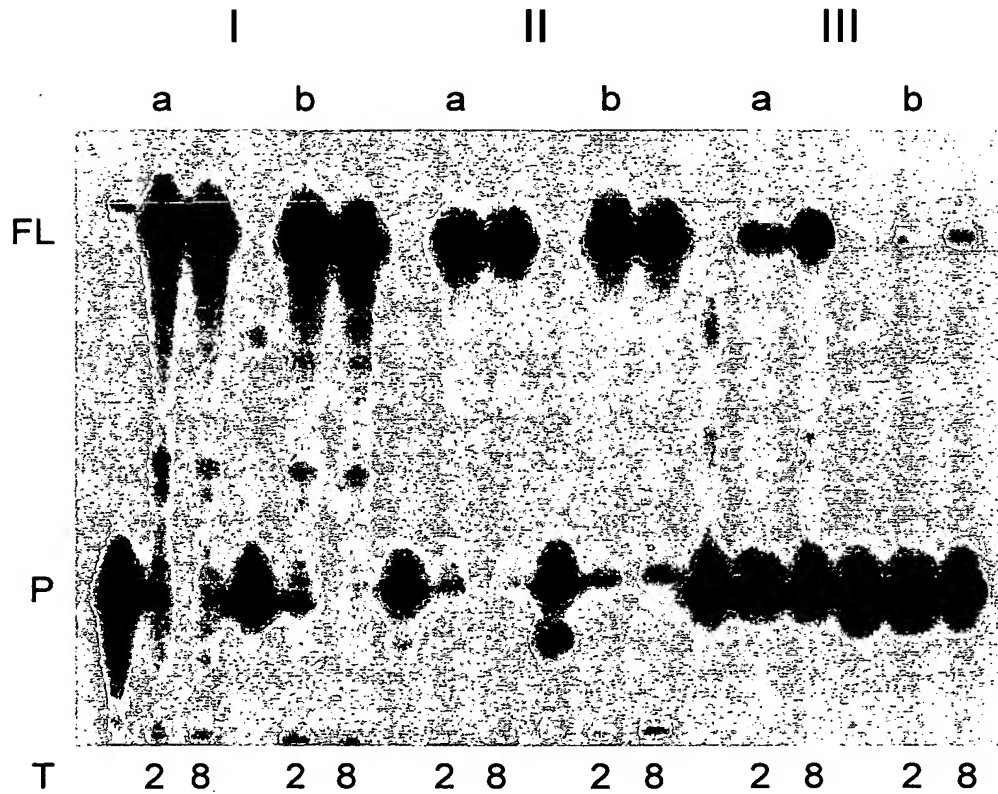


FIG.29

Appl. No. 10/026,952; Filed: December 27, 2001  
 Dkt. No. 0942,4980006/RWE/AGU; Group Art Unit: 1623  
 Inventor(s): NAZARENKO *et al.*; Tel: 202/371-2600  
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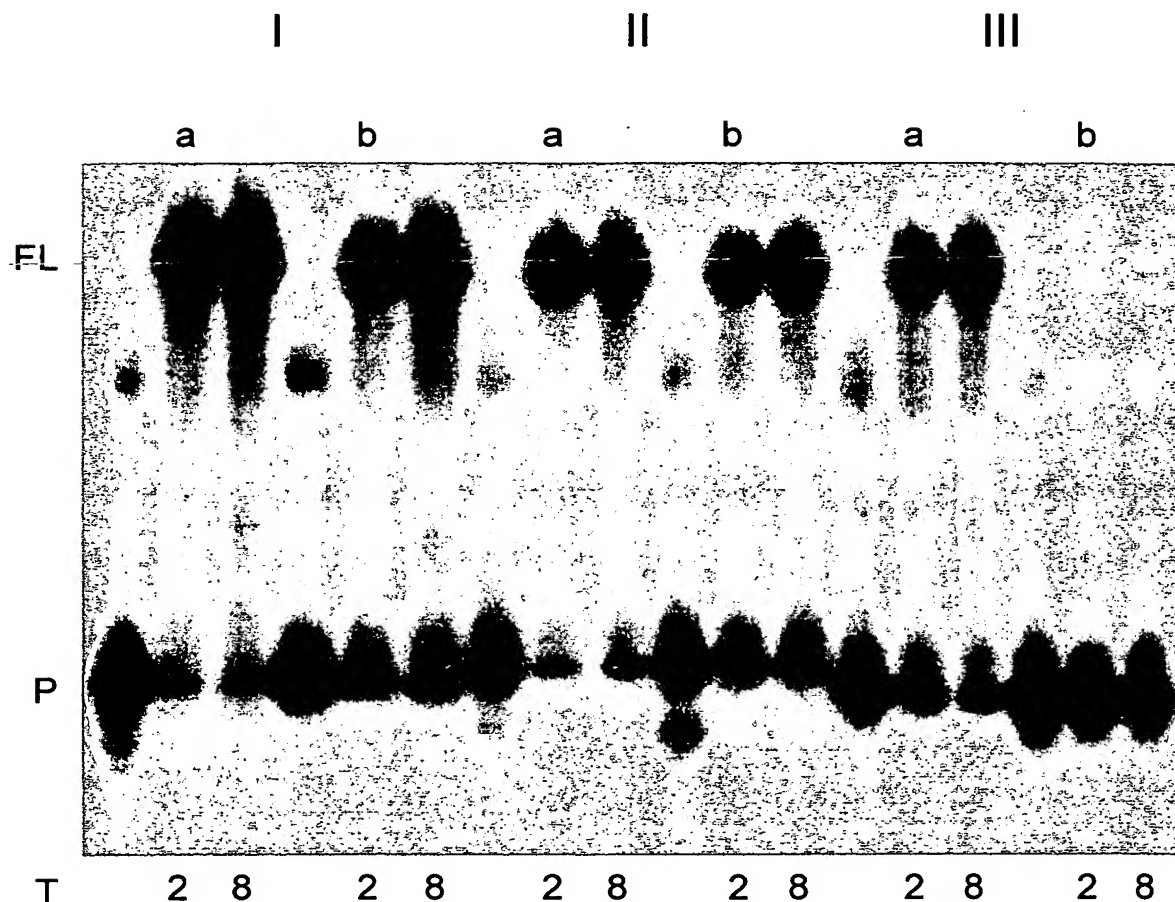


FIG.30

Appl. No. 10/026,952; Filed: December 27, 2001  
 Dkt. No. 0942.4980006/RWE/AGU; Group Art Unit: 1623  
 Inventor(s): NAZARENKO *et al.*; Tel: 202/371-2600  
 Title: Primers and Methods for the Detection and Discrimination  
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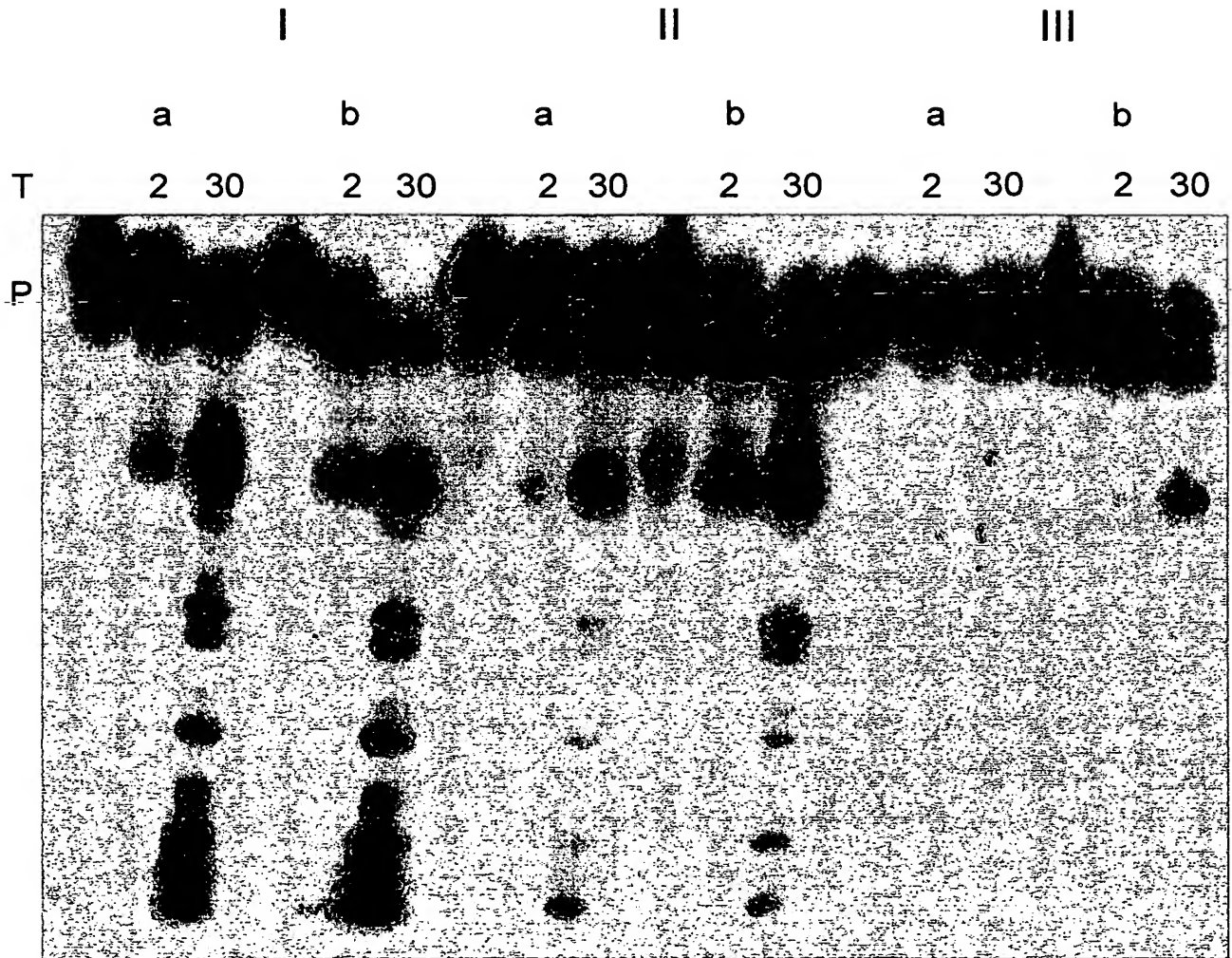


FIG.31

Appl. No. 10/026,952; Filed: December 27, 2001  
Dkt. No. 0942.4980006/RWE/AGU; Group Art Unit: 1623  
Inventor(s): NAZARENKO *et al.*; Tel: 202/371-2600  
Title: Primers and Methods for the Detection and Discrimination  
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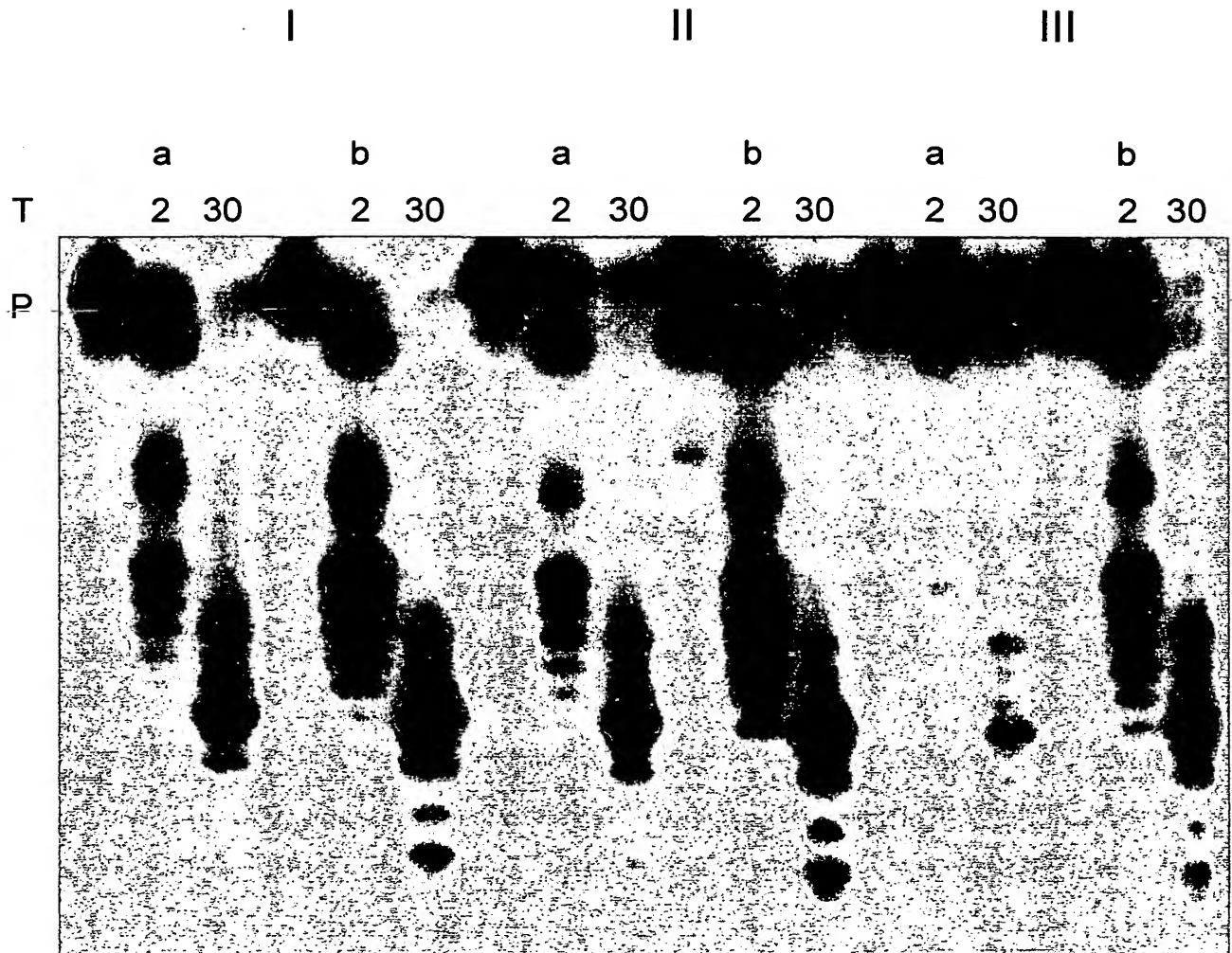


FIG.32

Appl. No. 10/026,952; Filed: December 27, 2001  
 Dkt. No. 0942.4980006/RWE/AGU; Group Art Unit: 1623  
 Inventor(s): NAZARENKO *et al.*; Tel: 202/371-2600  
 Title: Primers and Methods for the Detection and Discrimination  
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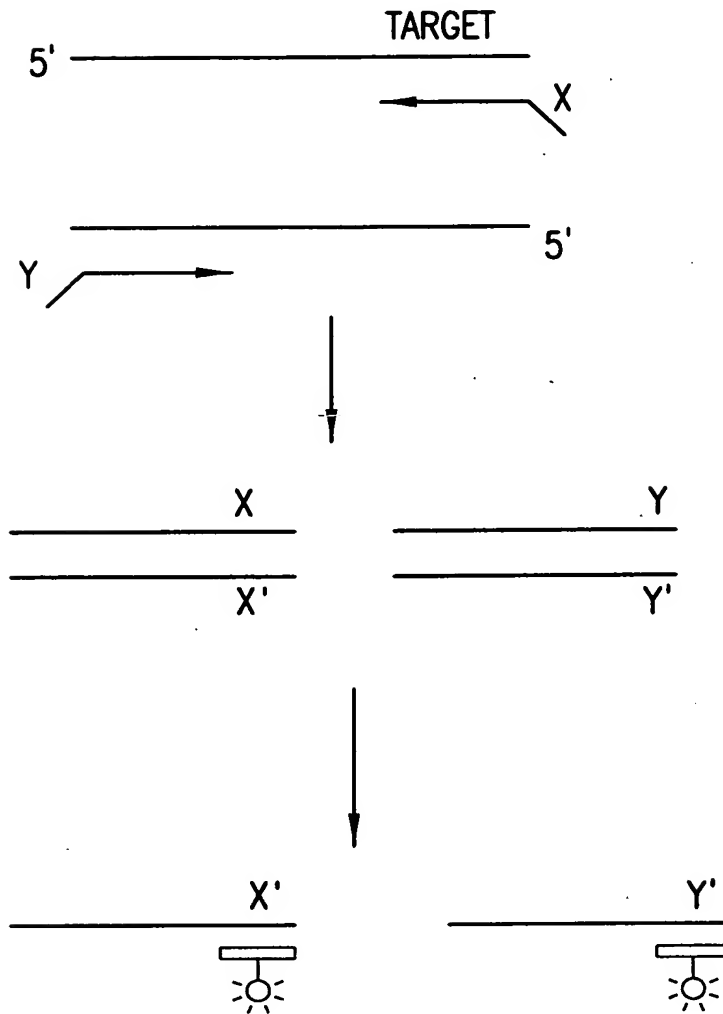


FIG.33

Appl. No. 10/026,952; Filed: December 27, 2001  
 Dkt. No. 0942.4980006/RWE/AGU; Group Art Unit:  
 Inventor(s): NAZARENKO *et al.*; Tel: 202/371-2600  
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 of Nucleic Acids

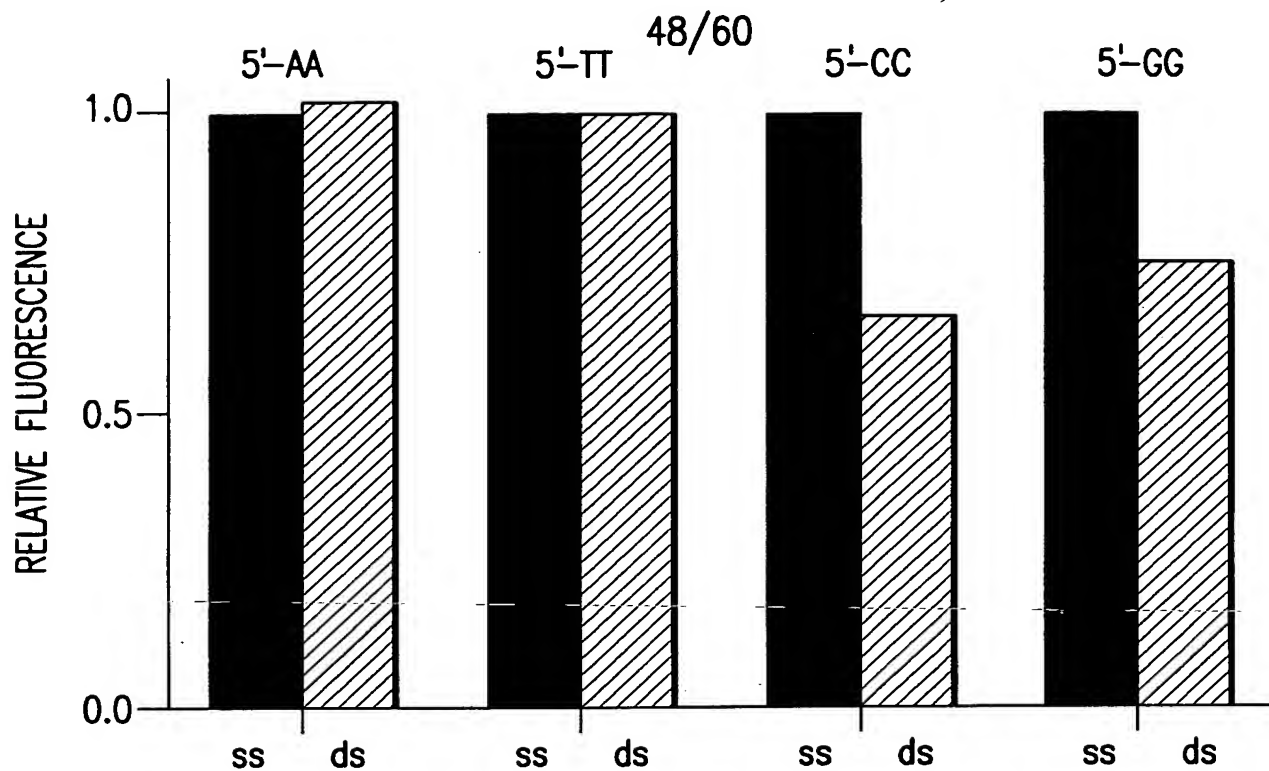


FIG.34

ctaccgagagaacaagagccatc  
 5' GATGGCTCTTGTTCTCGG TAG 3'

1

2

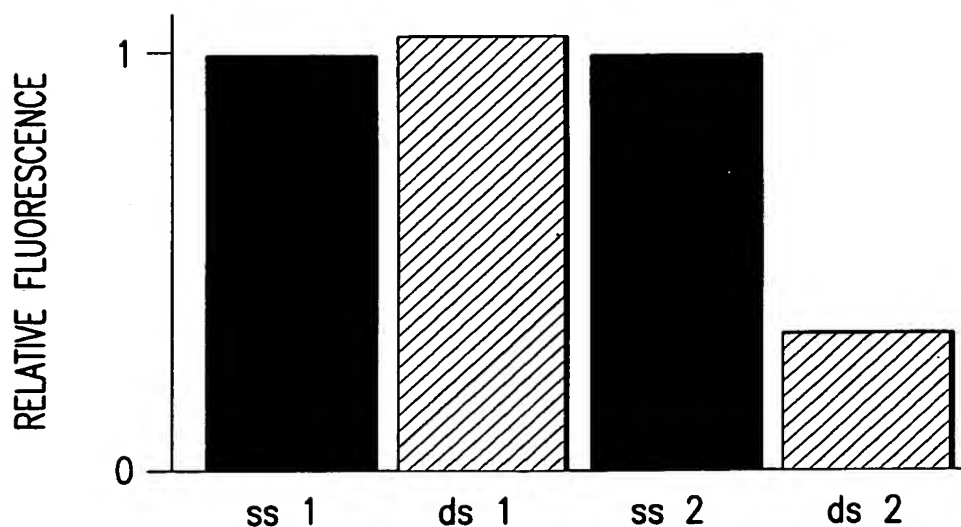


FIG.35



Appl. No. 10/026,952; Filed: December 27, 2001  
 Dkt. No. 0942.4980006/RWE/AGU; Group Art Unit: 1623  
 Inventor(s): NAZARENKO *et al.*; Tel: 202/371-2600  
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 of Nucleic Acids

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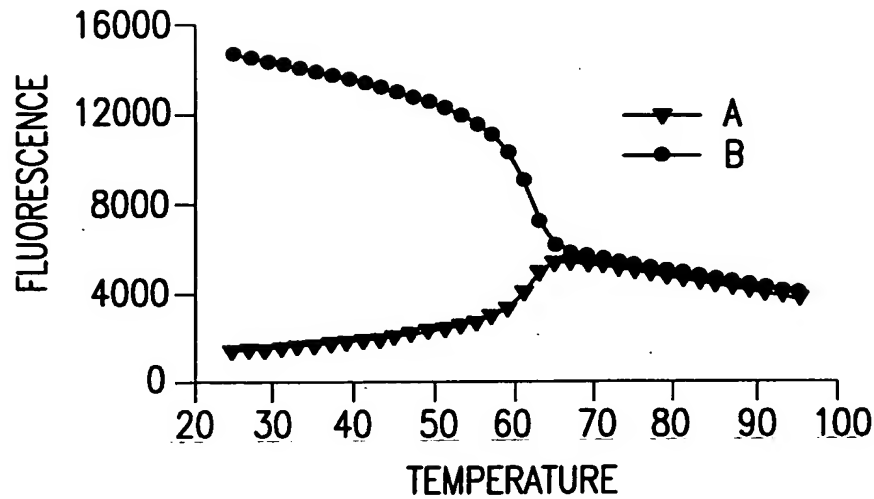


FIG.36

ggaagagtaccaccgacatcttg  
 5' CCTTCTCATGGTGGCTGTAGAAC 3'

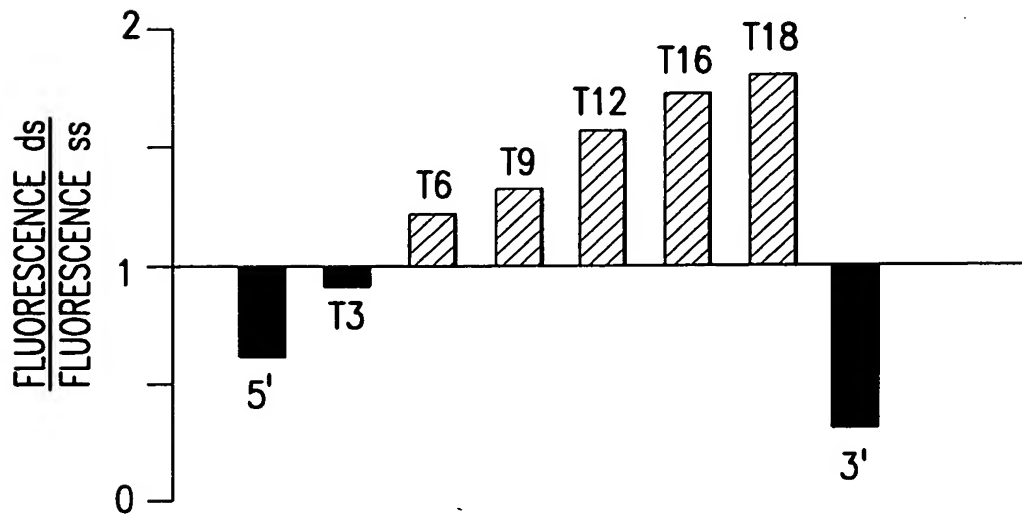


FIG.37

Appl. No. 10/026,952; Filed: December 27, 2001  
Dkt. No. 0942.4980006/RWE/AGU; Group Art Unit: 1623  
Inventor(s): NAZARENKO *et al.*; Tel: 202/371-2600  
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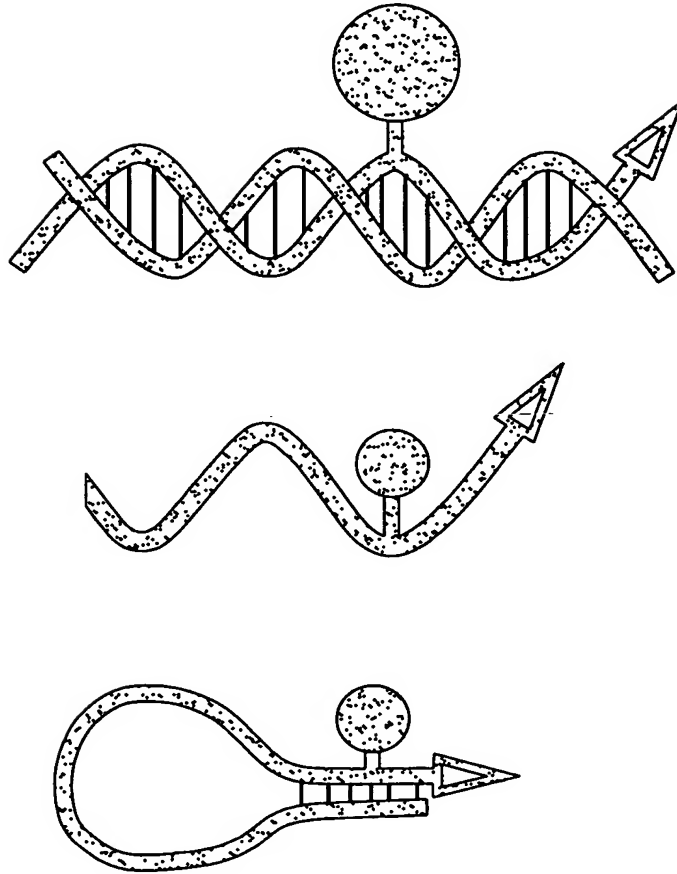


FIG.38

Appl. No. 10/026,952; Filed: December 27, 2001  
 Dkt. No. 0942.4980006/RWE/AGU; Group Art Unit: 1623  
 Inventor(s): NAZARENKO *et al.*; Tel: 202/371-2600  
 Title: Primers and Methods for the Detection and Discrimination  
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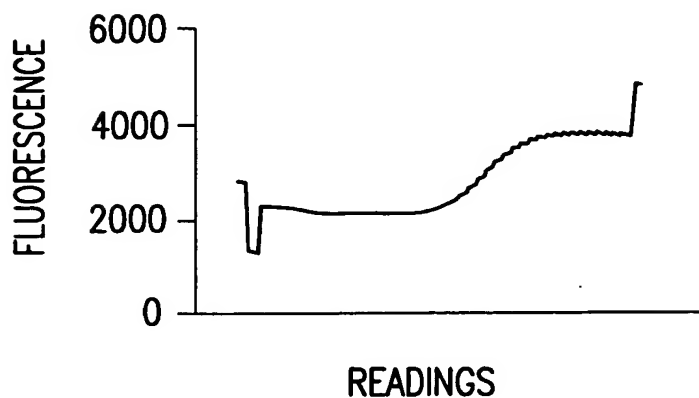


FIG.39A

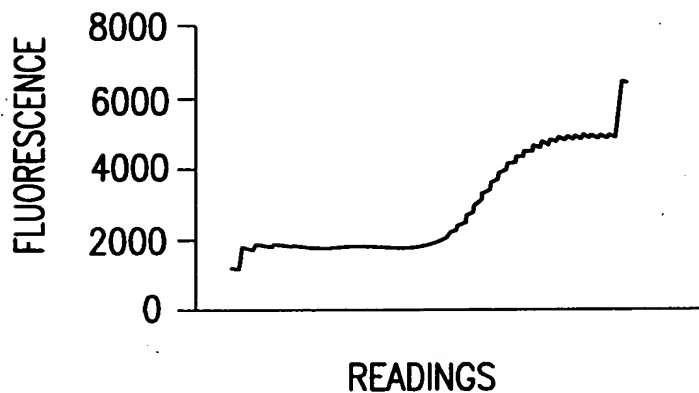


FIG.39B

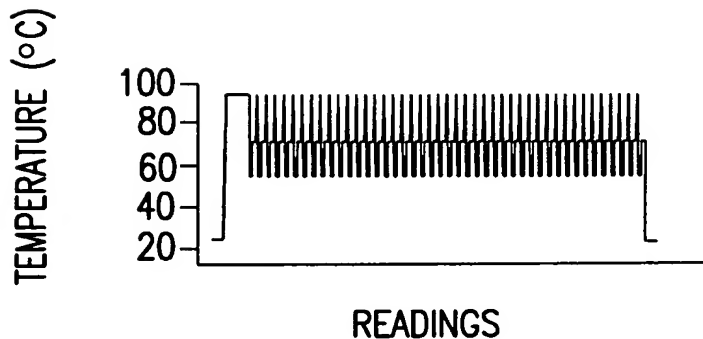


FIG.39C

Appl. No. 10/026,952; Filed: December 27, 2001  
Dkt. No. 0942.4980006/RWE/AGU; Group Art Unit: 1623  
Inventor(s): NAZARENKO *et al.*; Tel: 202/371-2600  
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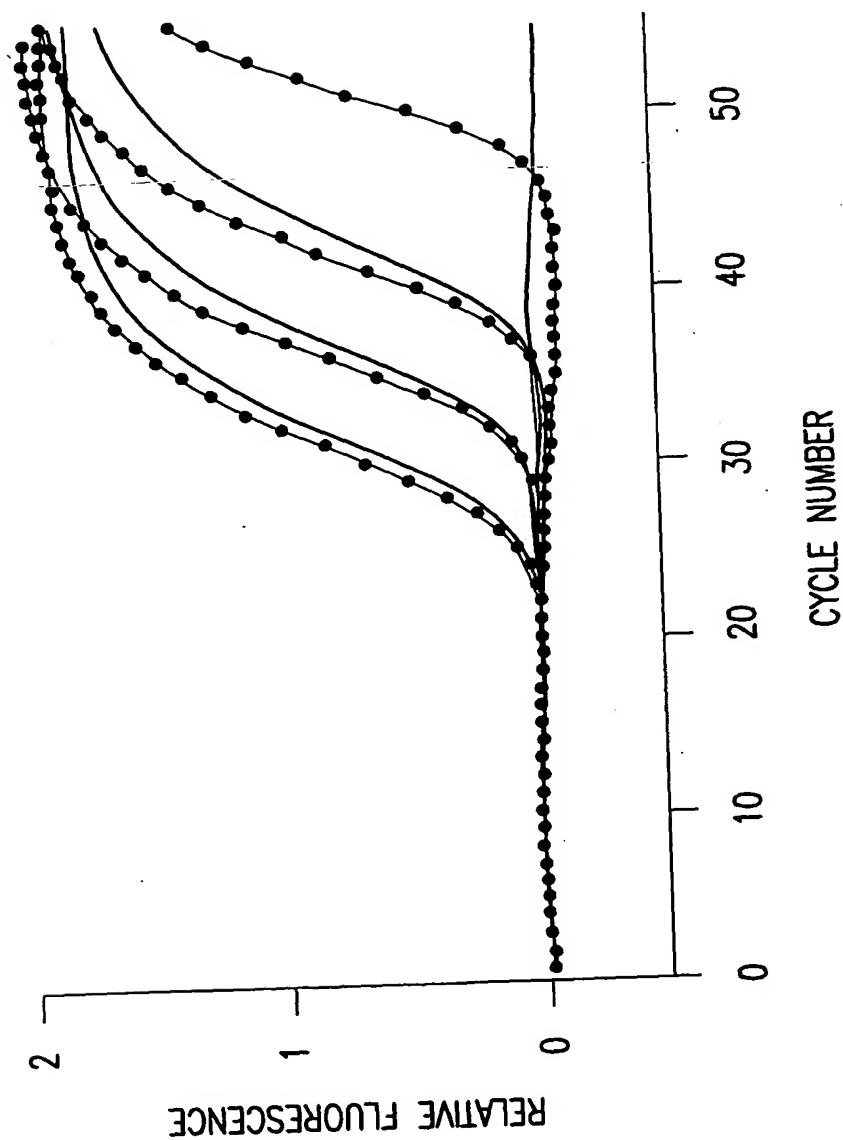


FIG.40

Appl. No. 10/026,952; Filed: December 27, 2001  
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 Inventor(s): NAZARENKO *et al.*; Tel: 202/371-2600  
 Title: Primers and Methods for the Detection and Discrimination  
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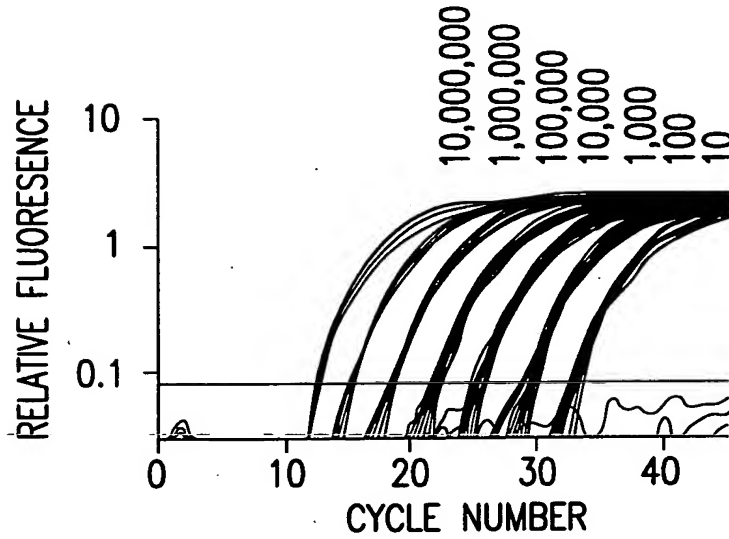


FIG. 41A

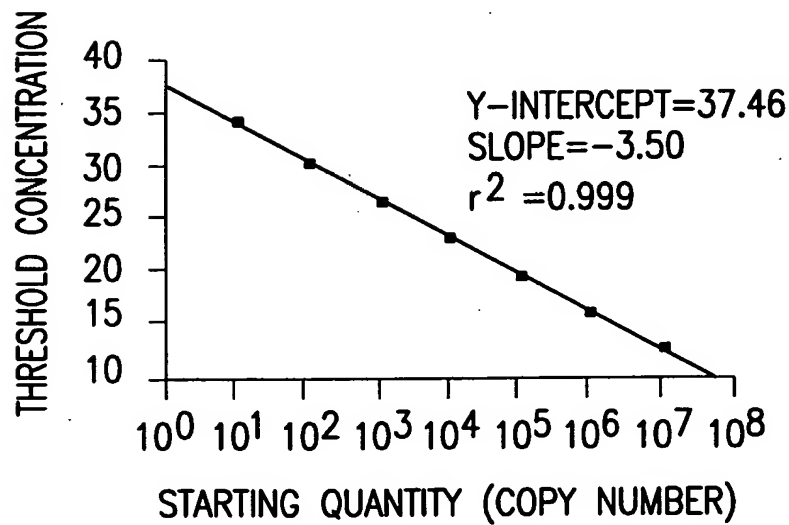


FIG. 41B

Appl. No. 10/026,952; Filed: December 27, 2001  
 Dkt. No. 0942.4980006/RWE/AGU; Group Art Unit: 1623  
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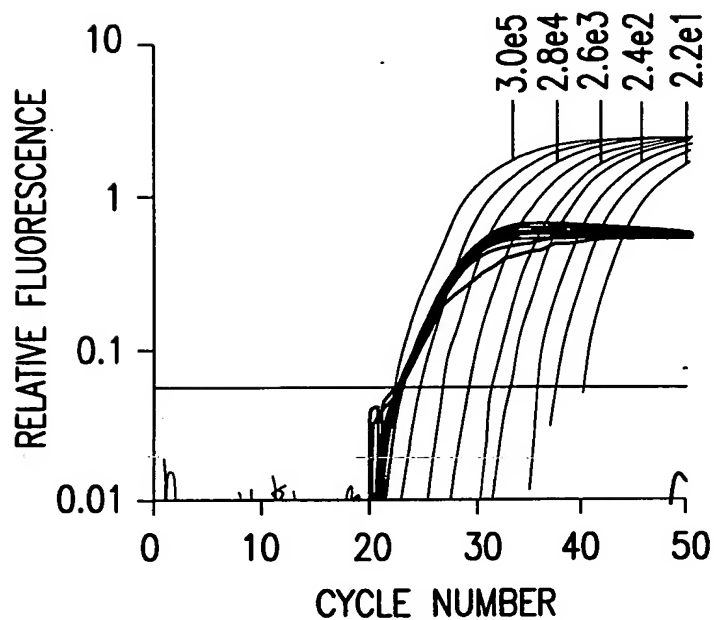


FIG. 42A

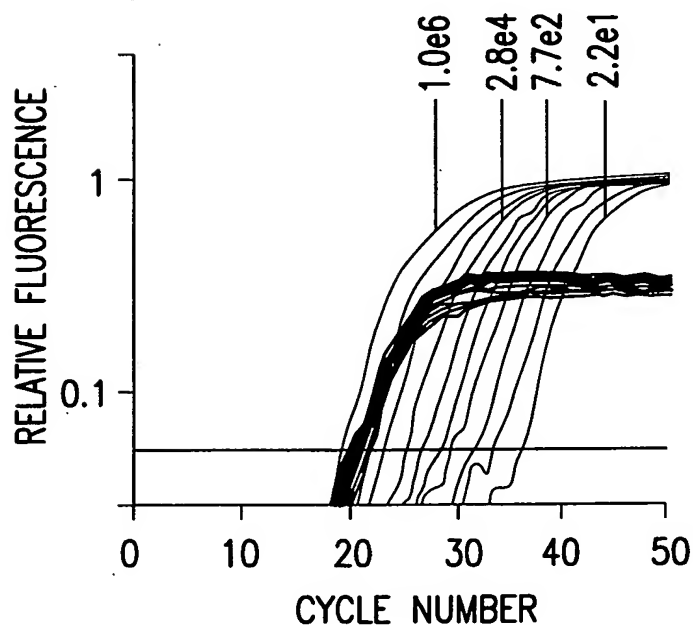


FIG. 42B

Appl. No. 10/026,952; Filed: December 27, 2001  
Dkt. No. 0942.4980006/RWE/AGU; Group Art Unit: 1623  
Inventor(s): NAZARENKO *et al.*; Tel: 202/371-2600  
Title: Primers and Methods for the Detection and Discrimination  
of Nucleic Acids

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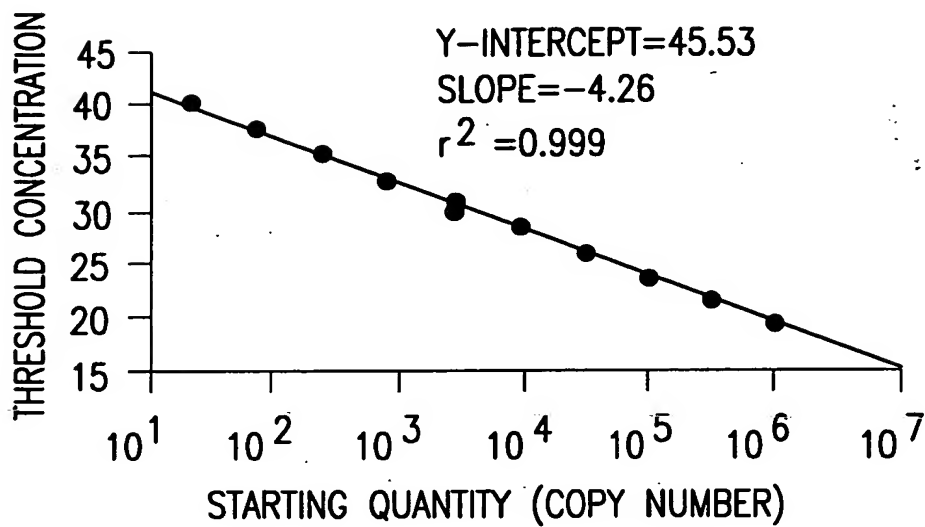


FIG.42C

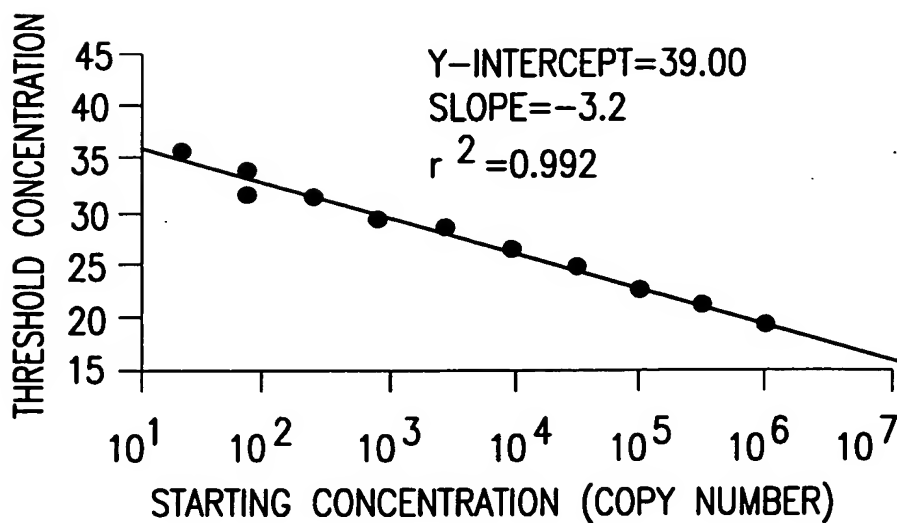


FIG.42D

Appl. No. 10/026,952; Filed: December 27, 2001  
 Dkt. No. 0942.4980006/RWE/AGU; Group Art Unit: 1623  
 Inventor(s): NAZARENKO *et al.*; Tel: 202/371-2600  
 Title: Primers and Methods for the Detection and Discrimination  
 of Nucleic Acids

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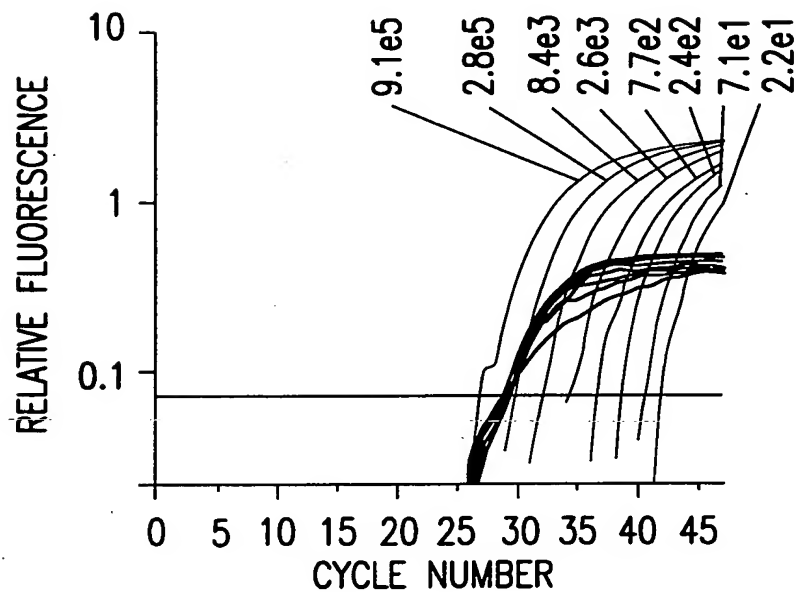


FIG. 43A

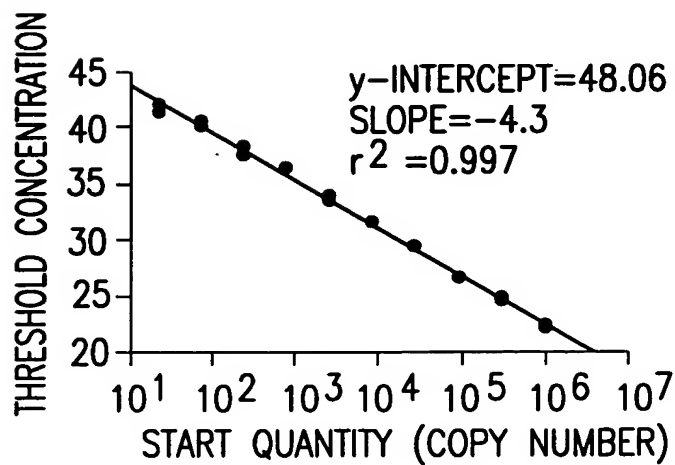


FIG. 43B



Appl. No. 10/026,952; Filed: December 27, 2001  
Dkt. No. 0942.4980006/RWE/AGU; Group Art Unit: 1623  
Inventor(s): NAZARENKO *et al.*; Tel: 202/371-2600  
Title: Primers and Methods for the Detection and Discrimination  
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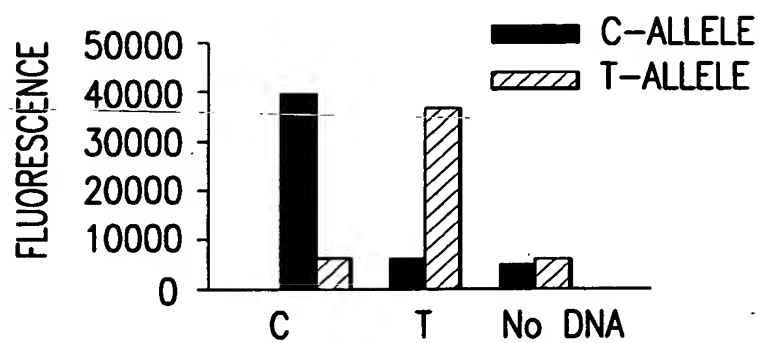


FIG. 44A

Appl. No. 10/026,952; Filed: December 27, 2001  
Dkt. No. 0942,4980006/RWE/AGU; Group Art Unit: 1623  
Inventor(s): NAZARENKO *et al.*; Tel: 202/371-2600  
Title: Primers and Methods for the Detection and Discrimination  
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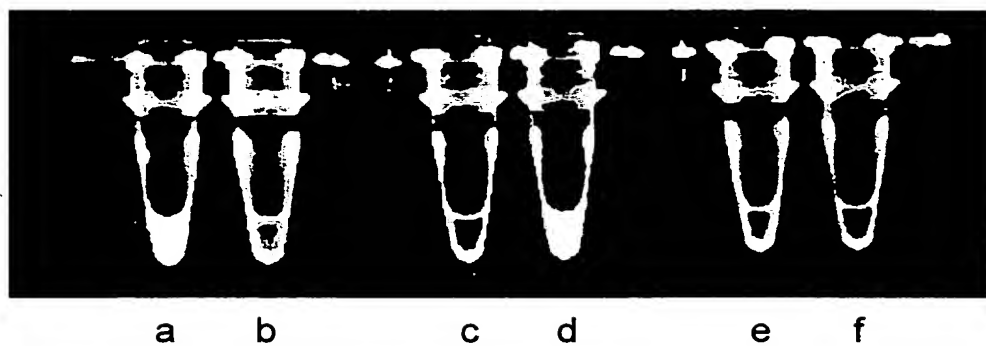


FIG.44B

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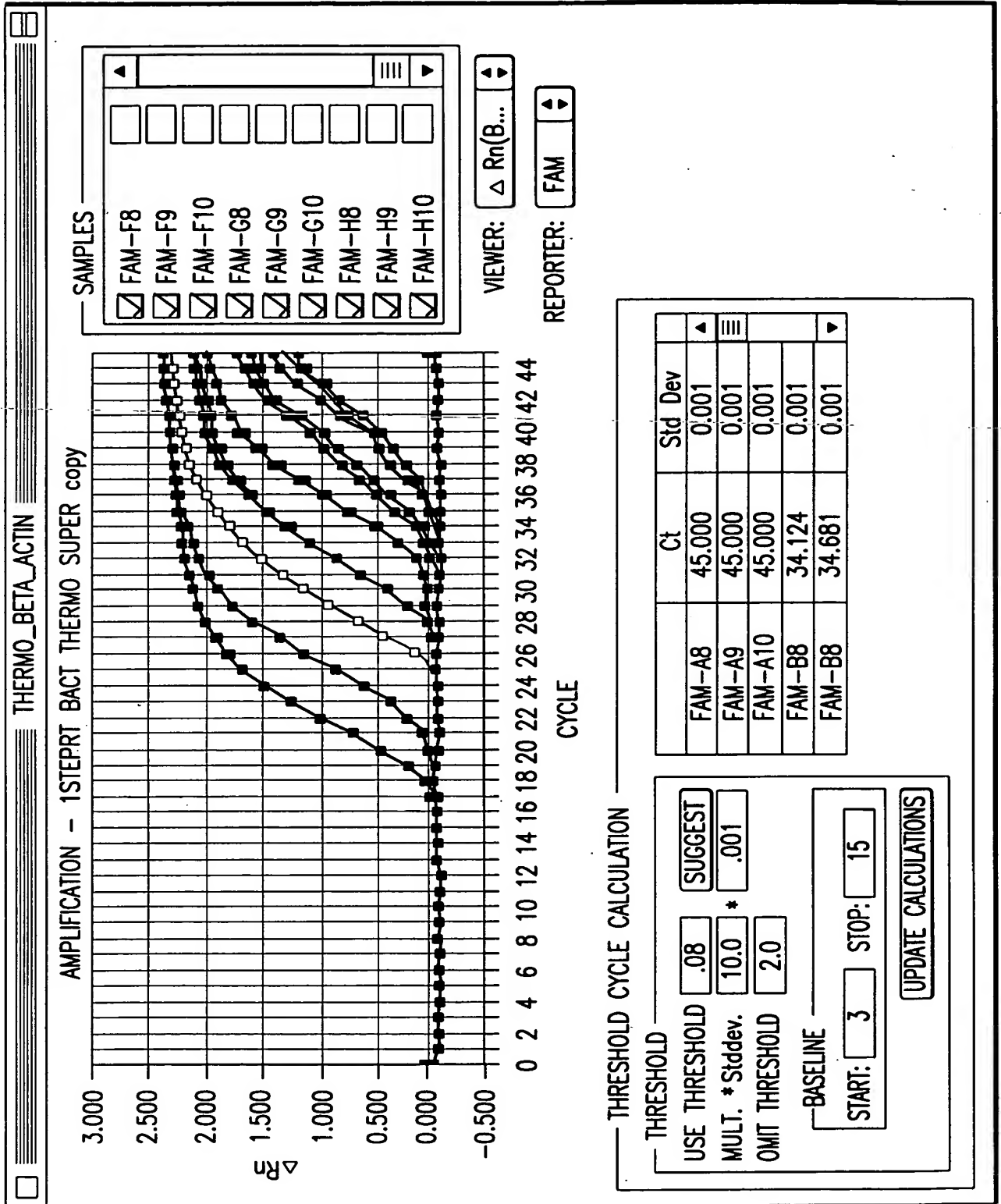


FIG.45

Appl. No. 10/026,952; Filed: December 27, 2001  
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 Title: Primers and Methods for the Detection and Discrimination  
 of Nucleic Acids

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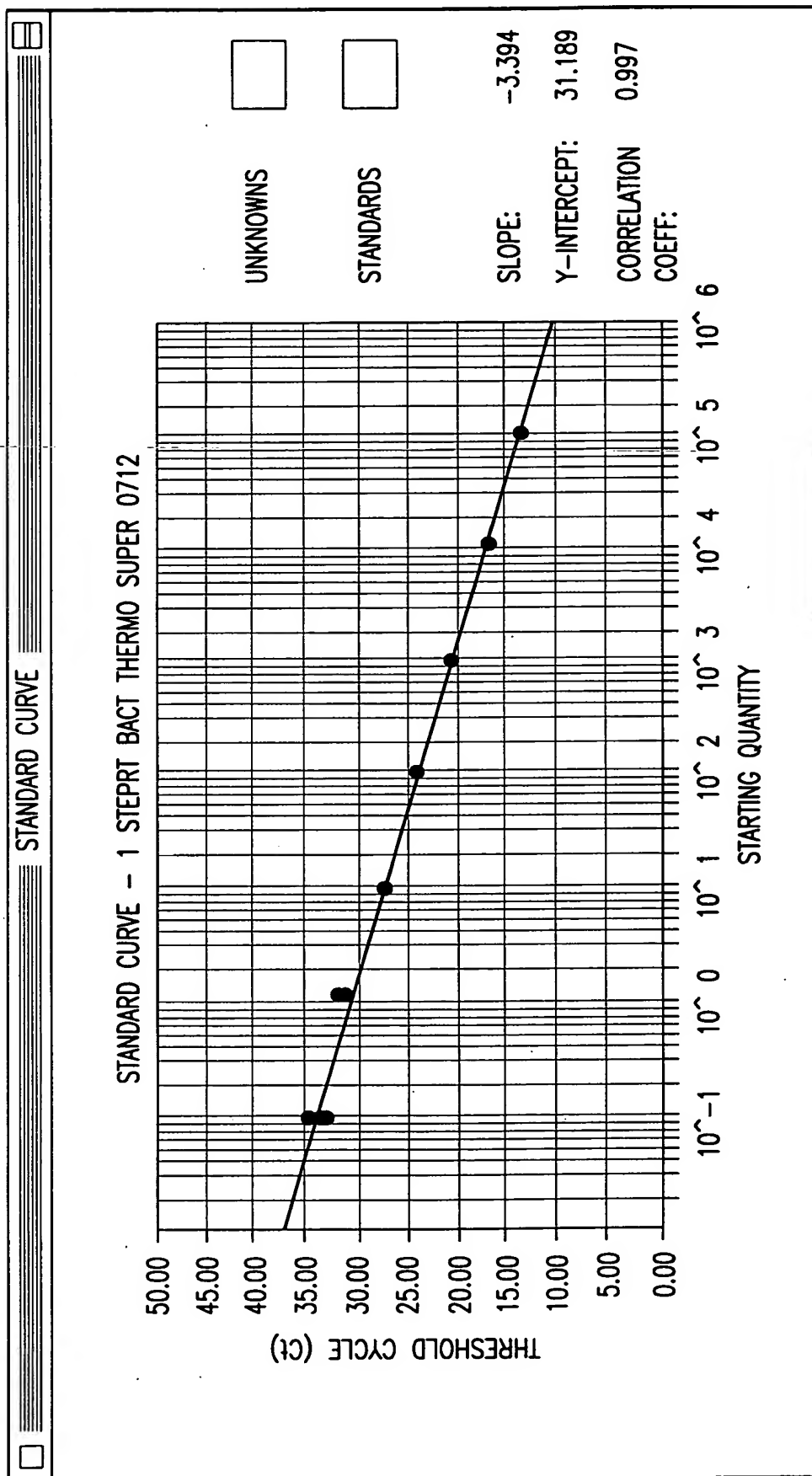


FIG.46